

GOVERNMENT OF TELANGANA



COMMON SCHEDULE OF RATES AS PER T.S STANDARD DATA FOR THE YEAR 2023-24 (Effective from 1st June 2023)

BOARD OF CHIEF ENGINEERS

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**Office of the Engineer-in-Chief (Admn)
I&CAD Dept., Errum Manzil, Hyderabad**

Proc.No.ENC/Admn/Dy.EnC/EE(Tech)/DEE-1/AEE-1/SoR 2023-24/Vol.I Dt:16.06.2023

Sub: Schedule of Rates as per Telangana Revised Standard Data for the year **2023-24** -Irrigation & CAD works(Part-I), Road & Bridge Works (Part-II), Building Work Items(Part-III) and Public Health Items (Part-IV)-Approved-Printing & Communication of **SoRs** - Reg.

Ref: 1) G.O.Ms.No.49,I&CAD (PW:Reforms)Dept., dt:02.03.2009
2) The Commissioner, Labour Dept.Lr. No H1/1418/2023 Dt.25.04.2023
3) Minutes of Board of Chief Engineers (BOCEs) meeting on finalization of Schedule of Rates 2023-24 held on 27.05.2023.
4) ENC (PH) Lr.No.146/ AEE-4/T2/Sor/2023-24 Dt.05.05.2023
5) ENC (NH & Bldgs) R&B Dept Lr. No: DEE-II/AEE-10/Bldgs/SoR-2023-24 Dt.25-05-2023.
6) ENC(SR,CRN&PPP)R&BDeptLr No.5040/EE(R)/DEE1/AEE1/2023Dt.19.05.2023.

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The Government have approved Revised Standard Data vide ref 1st cited. The Schedule of Rates as per Telangana Revised Standard Data for the year 2023-24 is approved based on the following.

The Engineer-in-Chief (Admn), I&CAD Dept., has furnished the draft rates proposed for Labour Rates and Basic data for Irrigation Items Part-I of Common SoR for the year 2023-24.

The Engineer-in-Chief (SR,CRN&PPP), R&B Dept has furnished the draft Schedule of rates for the Part-II of Common SoR for Roads & Bridge items for the year 2023-24.

The Engineer-in-Chief (NH & Bldgs), R&B Dept has furnished the draft Building Schedule of rates for the Part-III of Common SoR for Civil, Plumbing & Electrical items for the year 2023-24.

The Engineer-in-Chief (PH), PH&ME Dept has furnished Part-IV of Common SoR for Public Health works items and Public Health Materials for the year 2023-24.

The draft schedule of rates for the year 2023-24 as furnished by the Engineer-in-Chief (Admn), I&CAD Dept., Engineer-in-Chief (NH&Bldgs), R&B Dept., Engineer-in-Chief (SR ,CRN & PPP), R&B Dept., Engineer-in-Chief (PH), PH&ME Dept were discussed in detail and finalized in the Annual Board of Chief Engineers meeting held on 27.05.2023 at 11.30 AM in BOCE's Conference hall, Jalasoudha, I&CAD Dept., Hyderabad.

The approved basic rates are applicable to the datas as per Revised Standard Data approved by the Government vide G.O.1st cited.

The Government vide G.O. MS.No.15 T.R&B(R-1) Department Dt: 24.12.2014 have issued orders for adoption of MoRTH data by all Engineering Departments of

Telangana State in respect of Road and Bridge works, with prevailing Standard Schedule of Rates in preparation of estimates. The Government approval is necessary to adopt any other data.

The lead & lift charges are common to all Engineering Departments. The detailed calculations are incorporated in the Lead & lift chapter in the I&CAD Works (Part-I) of Telangana Revised Standard Data.

One hard copy & compact disc containing Schedule of Rates is here with communicated.

No other items other than the items communicated by this office shall be introduced in the SoR.

The Heads of Department and Officers mentioned below are authorized to print the Schedule of Rates for the year 2023-24. The unauthorized printing & selling of the SoR is strictly prohibited. The Schedule of Rates for 2023-24 will be in force until the new SoR comes in to force.

Any discrepancies found (or) corrections required in SoR 2023-24 may be brought to the notice of the undersigned for issuing necessary corrigendum/ addendum.

The revised rates will come into force from 1st June of 2023.

The receipt of the proceedings may be acknowledged.

Encl: SoR 2023-24 containing Part-I (Irrigation & CAD works), Part-II (Road & Bridge works) Part-III (Buildings works) and Part-IV (Public Health works)

Sd/- **G.Anil Kumar**; Dt:16.06.2023
Engineer-in-Chief(Admn)
Irrigation & CAD Department and
Chairman, Board of Chief Engineers

To,

- I. The following Heads of Departments along with Enclosures for information and necessary action.
 1. Engineer-in-Chief (NH & Buildings), Roads & Buildings Department.
 2. Engineer-in-Chief (SR, CRN & PPP), Roads & Buildings Department
 3. Engineer-in-Chief (P.H.), PH & ME Department.
 4. Engineer-in-Chief (P.R.), Panchayat Raj Department.
 5. Engineer-in-Chief (RWS) R W S & S, Department.
- II. Copy submitted to the Special Chief Secretary to Govt., I&CAD Dept., 4th Floor, Dr. B.R. Ambedkar Telangana Secretariat, Hyderabad for favour of information.
- III. Copy to the Superintending Engineer, Irrigation Circle, Irrigation & CAD Department, Red Hills, Hyderabad for necessary action

- IV. Copy communicated to the DEE (computers) with a request to place the Schedule of Rates 2023-24 & Standard data, Part-1 (Irrigation & CAD works) and Proceedings in I& CAD department website for wide publicity.

Sd/- G.Anil Kumar; Dt: 16.06.2023
Engineer-in-Chief(Admn)
Irrigation & CAD Department and
Chairman, Board of Chief Engineers

Preamble
(SoR 2023-24)
Common to all Engineering
Departments

COMMON PREAMBLE**1. AREA ALLOWANCES:****A) CORPORATIONS & MUNICIPALITIES:**

1. a). 25% extra over the basic rates on labour component of works is allowed in all Municipal Corporation Limits of Telangana except Greater Hyderabad (up to a belt of 12 Kms. from Municipal Corporation limits) and other corporations as notified by the Government from time to time.
- b). 40% extra over the basic rates on labour component of works is allowed in Greater Hyderabad (up to a belt of 12 Km from Municipal Corporation limits).
2. 20% extra over basic rates on labour component of works is allowed in all District Headquarters and the remaining Municipal limits (up to a belt of 12 Kms from Municipal limits).

B) JAIL COMPOUNDS:

20% extra is allowed over labour rates for the works in the Jail compounds. Only equivalent number of Man Mazdoor shall be provided in the Jail premises and no women Mazdoor are allowed inside.

C) INDUSTRIAL AREA:

20% over basic rates on labour component of works is allowed for works situated within 10km belt of Industrial area of Jeedimetla, in Malkajgiri District, Lingampally, Tandur, Ibrahimpatnam and Kothuru in Ranga Reddy District, Patancheru, Ramachandrapur in Sangareddy District, Bibinagar in Yadadri-Bhongiri District, Wadeally in Nalgonda District, Nagapally (Centenary Colony, Begumpet "X" roads), Takkalapally, Ramagundam and Godavarikhani in Peddapally District, Manchiryal, Mandamarri, Bellampalli in Manchiryal District, Sarpaka, Kothagudem, Paloncha and Manguguru in Bhadradi-Kothagudem district, Singareni Collieries area limits in Khammam and Bhadradi-Kothagudem, and Jayashankar-Bhoopalpally districts

D) AGENCY / TRIBAL AREAS:

1. 25% extra is allowed for the works located within the interior Agency / Tribal limits, i.e. for the works located within & upto 16 KMs from any all-weather route inside Agency / Tribal.
2. 40% extra is allowed for the works located within the interior Agency / Tribal limits, i.e. for the works located beyond 16 KMs from any all-weather route inside Agency / Tribal.

NOTE:

a) No extra percentage is permissible in respect of Forest produce such as Bamboo, Rellu grass and for all materials obtained from outside the Agency / Tribal.

- b) The extra percentage under Agency / Tribal areas allowance may be allowed on the labour component and on the labour charges in the rates for conveyance of materials.*
- c) The extra percentage on cost of materials in Agency / Tribal areas can be allowed on the labour component only, if they are manufactured in the Agency / Tribal areas itself except Forest produce.*

E) GHAT ROADS:

For Ghat Roads and other roads steeper than 1 in 20, the length of the road may be taken as 1.5 times the existing length of the road for the purpose of leads only for conveyance of materials based on the certificate for the Ghat Road given by the Superintending Engineer concerned.

Foot Note: Under compelling circumstances, the concerned Chief Engineer can adopt the equivalent length of road as 2 ½ times of actual length.

Note:

Area allowances: If more than one area allowance (such as those) for (1) Municipalities (2) Agency / Tribal areas (3) Industrial areas are applicable for a particular situation, only the maximum out of the allowable percentages is to be allowed.

2. EXCAVATION OF TRIAL TRENCHES, TRIAL PITS AND EXCAVATION IN RESTRICTED PLACES:

a). TRENCHES:

- 1) Trenches of not more than 2 meters in width : 25% extra

b). TRIAL PITS:

- 1) Up to 2 Meters depth : 25% extra
- 2) 2 Meters to 4 Meters depth : 50% extra
- 3) 4 Meters to 6 Meters depth : 75% extra
- 4) 6 Meters to 8 Meters depth : 100% extra
- 5) 8 Meters to 9 Meters depth : 150% extra
- 6) More than 9 Meters depth : 200% extra

c) EXCAVATION IN RESTRICTED PLACES: -

- 1) Foundation of Buildings : 75% extra
- 2) For Pipe line where the depth is less than 1.5 times the width-75% extra : 75% extra
- 3) For pipe lines where the depth is 1.5 times or more than the width : 120% extra
- 4) Silt removal in restricted areas such as U.T's., Culverts and Syphons. : 120% extra
- 5) Excavation of field channels : 75% extra

- 6) For narrow trenches not more than 2 meters in : 75% extra
width and depth not less than twice the width
and for excavation of road boundary drains,
model sections of canals.
- 7) High berm cutting of not more than 150 mm : 50% extra
average thickness and sectioning for roads

Note: 1) *The extra percentage is allowed over Common item for all earth works (COM-MWRK- Manual Works) for corresponding soil and Standard data items. It includes the charges for all lifts and initial lead but does not include dewatering charges if any in respect of all the items under (A) and (B) above.*

- 2) *The above extra percentages in respect of excavation in hard rock for restricted places are to be allowed for $(2/3)^{rd}$ of the cost and shall not to be allowed in respect of items involving blasting component which may be taken as $(1/3)^{rd}$ of the cost.*

3. MANUFACTURED SAND:

As per GO Ms No 37 Industries and Commerce (Mines-I) Dept., dated 29.05.2018, the Government have directed all the Engineering Works Departments to use Manufactured Sand (Rock sand) and natural river sand in the ratio of 50:50 in all the mixes of Cement concrete and in the items of works where sand is used earlier, to reduce the burden on Natural Resources and to make the sustainable ecosystem. Accordingly, the Manufactured Sand/Rock Sand shall be substituted proportionately in respective data items.

4. FLY ASH BRICKS:

As per recommendations of Board of Chief Engineers dated 11.11.2016, and MoEF & CC amended Notification No S.O 254(E), dated 25.01.2016 all Engineering Departments shall mandatorily adopt Fly ash bricks and other Fly ash based products in Buildings and other allied works proposed within 100 Km radius of fly ash generating Coal/Lignite based Thermal Power plants in Telangana.

5. PORTLAND SLAG CEMENT:

As per GO Ms No 174 I&CAD (Reforms) Dept., dated 20.03.2015 the Government have agreed for the use of Portland Slag Cement conforming to IS 455-1989 in specific works only duly ensuring proper quality of material and mixdesign. Further the Sub-Committee is recommending the monthly rates of PSC and PPC along with OPC grade of Cement. Accordingly, the cost of PSC shall be substituted in the place of OPC in respective data items wherever it is used as per necessity.

6. CONVEYANCE OF BITUMEN (BULK AND PACKED)

Packed Bitumen	---	Rs 2.25 per Km/MT
Bulk Bitumen	---	Rs 2.00 per Km/MT (Round the trip)

7. SEIGNIORAGE CHARGES

Note: The rates of the materials indicated in the **SoR** are exclusive of Seigniorage Charges.

The concerned Technical sanctioning authority should ensure that the relevant Seigniorage charges as fixed by the Government from time to time on work items shall be reconciled separately duly excluding from the data, so that, the Seigniorage charges are not affected by quoted Tender percentage.

8. G S T (Goods & Service Tax):

The GST (Goods & Service Tax) on **Works Contract** shall be implemented as per orders of the Government from time to time.

GUIDE LINES

- 1) The Schedule of Rates (**SoR**) is formulated under four Parts, which are applicable to all the Engineering Departments and other Organizations under the control of Telangana State Government.

PART -1: Irrigation& CAD (Dam and Allied Works, Canals and Allied Works, Canal C.D. Works, Tunnels and Allied Works, Preliminary and Maintenance Works, Hydraulic Gates and allied works and Leads and Lifts applicable to all Departments.

PART -2: Roads and Bridges

PART -3: Buildings including Electrical Works

PART -4: Drinking Water Supply and Public Health (Only for works done by manual means)

2) Brief description of item of work:

Brief description of the item of work to cover all important aspects of the work included in the Data. On reading the description of the item, the user should be in a position to assess the various cost components involved in the work.

3) Data for assessing quantities:

The data reflects various assessments / assumptions made in arriving at the quantities of materials, machinery, labour and other in-puts. In case of plants and equipment the output of main plant is worked out and the requirement of all other inputs and assessed to match the output of the main plant. Cycle time of operations is the criteria for assessing the output of equipment. Generally, the equipment manufacturers furnish the output of

machinery under ideal conditions of working. Suitable job and management efficiency factors are considered while working out the average output of machinery under field conditions. In case of combination of machinery and manpower, the assessment of manpower shall match the output of machinery.

Though cycle time of operations is the criteria for hourly / daily out-put of machinery work-force, the actual progress of work depends on several other factors such as power interruptions, minor break-downs, time for meals and other needs of work-force, stray rains etc. Therefore, it is the general practice to consider 50 minutes as the actual working time per hour for working out the hourly / daily out-put of machinery / work-force. CWC / BIS guide-lines stipulate the actual working hours for the purpose of equipment planning and utilisation. The daily out-put is computed duly considering the actual available working time and feedback from the field.

- For gate and hoist works, it is the general practice to specify the quantity of work in terms of number of sets of embedded parts / gates. The requirement of machinery and work-force for cutting, bending, fabrication, erection, painting etc., is assessed to commensurate with the task involved.
- The data for gates and E.M. Parts is arrived per Metric Tonne (MT) quantity.
- The data for Hoists and Gantry Cranes is worked out on the basis of capacity in tonnage.

4. **The lead and lift charges** provided in SoR are generally applicable and common to all Engineering Departments. Any item which is not covered in this part, the rates as provided in the data of the relevant works may be adopted in preparation of estimates.

5. **Input Basic Materials** needed for all works are listed and incorporated in the data. The requirements are analyzed and the specifications adopted shall confirm to Standards published by the BIS.

- The labour and material rates will be finalised by the Board of Chief engineers.
- Unless otherwise specified, all material rates shall be exclusive of GST.
- For Sand, Gravel, Murrum, Stones, Coarse Aggregates etc, the rates are ex-quarry/Stock yard, adding loading charges by machinery / manual means and idle hire charges of machinery as per table under chapter “conveyance or lead and lift charges”, as applicable.
- For AC sheets, GI sheets, Hume pipes, wood and stone slabs, the rates are to be taken prevailing at major commercial centre near project area. The lead charges, as applicable are to be added in preparing estimates
- For Steel and Cement, the rates are delivery at site excluding GST.
- The specifications of the aggregates for sizes and gradation and its adoption shall be as per IS 383.

6. The Labour component in the data is mentioned for unit work.

- No allowance towards labour importation and labour amenities added extra as they are included in the recommended overheads.
- On Labour Component: Certain additional allowances are added extra to the wages of labour (i.e. only on labour component in the work item) in the form of percentage, as recommended by the Government/Board of chief engineers due to statutory and other provisions.

7) Hire Charges of Machinery: The machinery and /or group of machinery for items of works and their output has been worked out based on the availability of machinery generally in the market and working in the field successfully, duly considering cycle time, idle time, operator efficiency, type of work etc.

- The hire charge of a machinery / equipment is worked out based on the guidelines published by CWC and BIS codes.
- For the other machinery not covered by the list, the R&B and other users may adopt hire charges as recommended by the MORTH.

8) Lead Charges

- a. The high level committee has recommended to adopt, for conveyance by head load, a minimum lead of 50 meters and additional lead up to 150 meters in the intervals of 50 meters. Beyond 150 meters' lead, only machinery rates are to be adopted.
- b. The basic work item rates provided in the Standard Data & Schedule of rates include 50 m or 1 km as initial lead and no lead charges shall be allowed where the source of material is within the initial lead specified in item rate. Additional lead charges shall be allowed for the lead exceeding initial lead specified in the item rate. The Guidelines may be followed regarding adding Lead charges as given against each chapter.
- c. For the materials where the basic rates are mentioned as "Quarry Rates" in the SoR, which includes initial lead of 1.00km lead charges are to be added for the lead distances from the approved quarries as applicable
- d. The lead charges per unit quantity for conveyance of the materials are worked out, and included in the schedule of rates in increment of 50 m for head load and in increment of 1 km for mechanical mode.
- e. The rates for lead charges by head load up to 150 meters and by machinery up to 5 km, shall be cumulative and inclusive of lead charges for preceding lead. For lead beyond 5 km, the lead charges shall be worked out on per km basis.

9. Loading and Unloading Charges for Materials

The following features are considered:

- a. Loading and unloading charges are not payable for conveyance by head load.

- b. Loading and unloading charges are not payable for conveyance by mechanical means, for disposal of excavated material unless specified.
- c. The rates for unloading of materials except earth, sand, gravel, coarse aggregate, rubble, size stone and cut stone, are inclusive of stacking wherever applicable.

10. Lift Charges:

- a. The data includes initial lift charges of 3.0 meters, for materials conveyance by head load, Additional leads in the interval of 1.0 meters are worked out, as additional labour input and incorporated in the chapter on "Lead and lifts"
- b. Where the conveyance / lifting of material is done by mechanical means, lift charges shall not be considered, as the cycle time of operation of the machine includes lifts involved.
- c. The data and rates for lift charges is cumulative and are inclusive of rates for preceding lifts also.

11. Wastage of Materials

- a) **Cement:** No wastage allowance is recommended towards the quantity of cement used in works, as the wastage is already included in the input and in major works bulk quantities are used.
- b) **Steel:** The wastage of steel @ 2.5% is allowed for gates and allied structures. For RCC works the wastage is @2.5% for the reinforcement rods above 36mm dia. and @ 5% for rods below 36mm dia. including overlaps, if they are not welded. If welding is adopted for the reinforcement rods even for below 36mm dia, 2.5% of wastage is only recommended.

12. In Respect of RCC Works, the rate for cement concrete for 1 cum is worked out separately for all grades based on Indian Standards. The rate of Reinforcement steel per MT is calculated separately and to be added in the estimates of RCC works as a separate item.

13. Soil Classification: The Committee recommended to allow uniform classification of soils for all Departments and data is worked out accordingly.

- 1. All soils
- 2. Marshy soil
- 3. Ordinary rock (Not Requiring Blasting),
- 4. Hard rock
 - a. Hard Rock (Requiring Blasting)
 - b. Hard Rock (Controlled Blasting)
 - c. Removable by Chiseling (Blasting Prohibited)

14. Use of Super Plasticizers and Admixtures:

Concrete admixtures such as Air-Entraining Agent (AEA) / Water reducing agent can be used advantageously for better quality concrete. The high level committee has recommended to adopt for super plasticizers and admixtures at 0.4% on cement for concrete work as per MORTH standards for batching plants.

15. Contractors overheads, profit and other provisions:

- a) The provisions allowed in G.O.Ms.No.94, I&CAD, dated 01.07.03, need not be added separately for the items covered in the contractor overhead charges.
- b) For all Road & Bridge works Overheads & Contractors profit shall be allowed as specified in the **MoRTH** Standard Data Book.
- c) Overheads and Contractor's profit @ 13.615% shall be allowed in the data which includes labour importation and amenities etc. as mentioned below.
 - i. Site accommodation, setting up plant, access road, water supply, electricity and general site arrangements.
 - ii. Office furniture, equipment and communications
 - iii. Expenditure on:
 - a. Corporate office of contractor
 - b. Site supervision
 - c. Documentation and "as built" drawings
 - iv. Mobilisation/ De-Mobilisation of resources
 - v. Labour camps with minimum amenities and transportation to work sites.
 - vi. Light vehicles for site supervision including administrative and managerial requirements.
 - vii. Laboratory equipment and quality control including field and laboratory testing.
 - viii. Minor T & P and survey instruments and setting outworks, including verification of line, dimensions, trial pits and bore holes, where required.
 - ix. Watch and ward
 - x. Traffic management during construction
 - xi. Expenditure on safeguarding environment
 - xii. Sundries
 - xiii. Financing Expenditure

16. Role of Central Competent Agency For Schedule Of Rates (Board Of Chief Engineers)

- a) The Board of Chief Engineers under the Chairman ship of Engineer-in- Chief, (Administration) I&CAD Department is the competent authority to finalize and recommend the Schedule of Rates applicable for all Engineering Departments. The

Board has to assess and incorporate only the three basic inputs required to generate unit work item rates as below.

1. Basic rates of labour:

Wages of labour commonly required in execution of works has to be arrived and incorporated in the schedule of rates (**Basic input of Labour wages**), without adding extra towards area allowances (like municipality allowance, tribal area and ghat road allowances etc,) which shall be added to the rates where applicable in the form of separate percentage as explained in the preceding paras. The rates shall be the prevailing daily rates in the State and shall not be less than the minimum wages fixed by the Government from time to time.

2. Materials Rates:

The basic input material rates common to all departmental works are listed out and incorporated (in the chapter “Basic inputs”) The material specifications adopted shall confirm to Standards published by the BIS.

The Prevailing market rates for all basic input materials shall be obtained from the major commercial centers near the project areas. Average of the rates, ignoring freak rates, shall be reckoned as the prevailing market rate excluding all taxes viz., GST.

For sand, gravel, murrum, stones, aggregates etc., the rates are ex-quarry/stock yard including loading charges and idle hire charges. For steel, Cement, AC sheets, GI sheets, Hume pipes, wood and stone slabs, the rates prevailing at major commercial centre near project area has to be adopted.

3. Use Rate of Machinery:

The third parameter for incorporation in the Basic Inputs, is the use rate of machinery. To arrive at the use rate of machinery, the inputs to be incorporated are

- i. The list and capital cost of machinery required to be used in the construction activity, The rate has to be obtained from major manufacturers and outlet sources and the rate shall be the current market price excluding all taxes and duties i.e G.S.T etc. and including freight charges.
- ii. The prevailing fuel charges of petrol and diesel are ascertained and average rate adopted
- iii. Borrow rate of interest as fixed by the Government/competent authority be indicated.
- iv. For the other machinery not covered by the list, the R&B and other users may adopt hire charges as recommended by the MORTH

- b) The Chairman, Board of Chief Engineers(BOCEs) or competent authority appointed by the Government, based on the approved basic inputs, load the above three basic parameters in the software program. The unit rate of all works including hire charges of all machinery will be generated automatically for adoption.

The Chairman, BOCEs shall communicate the uniform Schedule of rates and Standard Data, to all users for uniform and direct adoption in all infrastructure Departments, as applicable.

Sd/- G.Anil Kumar; Dt:16.06.2023
Engineer-in-Chief(Admn)
Irrigation & CAD Department and
Chairman, Board of Chief Engineers

Preamble
(SoR 2023-24)
Roads & Bridges Departments

PREAMBLE

1.0 QUOTATION ITEMS

Requests for inclusion of new items have been examined with respect to the market trends, technological changes, need for use and general practices. Certain modifications were needed to the existing items as per the suppliers/ manufacturer's recommendations. For those items where specific quotations from the manufacturers, suppliers or vendors are received, the lowest quoted rates are considered. Similarly, Cement Solid Blocks were introduced as per the general practice and demand to use alternate materials to bricks.

2.0 OTHER GUIDELINES AND AMENDMENTS TO DATA ITEMS

- i. Specific recommendations were received from the suppliers/ manufacturers on adoption of Non-SoR rates or Catalogue rates, which are not included in the present SoRs, will continue to be treated as supplemental items during the execution of work in the following manner:
 - a. Supply of all Vitreous chinaware porcelain items such as Indian Water Closets, European WCs both wall hung and floor mounted, Wash Hand Basins, Urinals etc., Catalogue items (Non SoR items) - 15 - 25% discount on MRP.
 - b. Supply of CP Fittings such as Taps, Stopcocks etc., Catalogue items - 20% discount on MRP.
 - c. For all other supply items, which are obtained as Non-SoR items, a 20% discount may be operated on the MRP/ Catalogue prices obtained from the suppliers/ dealers/ manufacturers.
- ii. It is recommended to continue to allow 15% allowance on the labour charges for the works which are taken up in VVIP areas such as Hon'ble Governor's residence, Hon'ble Chief Minister's residence, Hon'ble Chief Justice residence, Hon'ble High-court, and Secretariat where VVIP presence imposes restrictions on labour mobilization, movement, working manner, including material mobilization.
- iii. The above allowances may be added in the rate-analysis of sanctioned estimates to arrive at the budget requirements/ contract values/ agreement rates.
- iv. Finished item rates for CPVC pipes along with fittings for plumbing works have been added in Plumbing items.

Sd/-P.Ravinder Rao Dt.25.05.2023
Engineer-in-Chief, (NH& Buildings),
Roads & Buildings Department
Errum Manzil, HYDERABAD

PART-I

IRRIGATION & CAD

WORKS

**BASIC DATA
FOR
IRRIGATION WORK ITEMS**

PART-1 INDEX

IRRIGATION & CAD WORKS

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**SCHEDULE OF RATES
BASIC DATA FOR
IRRIGATION WORK ITEMS
FOR THE YEAR 2023-24
STATEMENT OF RATES FOR MATERIALS**

General Guide Lines for Revising Rates of Materials

1. Average of the prevailing market rates, ignoring freak rates, shall be the criteria for fixing market rates for materials.
2. The rates for materials is exclusive of seigniorage charges wherever applicable.
3. The rates for materials, except those for which lead charges are admissible as per the statement of lead charges, shall be for applicable all leads.
4. The rates provided for useful rubble / stone chips from excavation shall be at dump yard

Sl. No.	Description of material	Unit	Scheduled Rates
1	Acetylene gas	cum	405.00
2	Asphalt 80/100 Grade	Kg	55.00
3	Binding wire	Kg	75.00
4	Burnt stone slab 10 cm thick	sqm	313.00
5(a)	Ordinary Portland Cement (43/53 GRADE) *(Note: As per Monthly rate fixed by SubCommittee)	tonne	*5200.00
5(b)	Portland Pozzolona cement *(Note as per monthly rate fixed by committee)	tonne	*5100.00
5(c)	Portland Slag Cement *(Note as per monthly rate fixed by sub-committee)	tonne	*5100.00
6	Chequered plate	Kg	71.00
7	Coarse aggregate 10-4.75 mm(excluding Seigniorage charges)	cum	806.00
8	Coarse aggregate 20-10 mm(excluding Seigniorage charges)	cum	1050.00
9	Coarse aggregate 40-20 mm(excluding Seigniorage charges)	cum	944.00
10	Coarse aggregate 80-40 mm(excluding Seigniorage charges)	cum	596.00
	<i>The aggregate rates mentioned above (from Sl.No.7 to Sl.No.10) are exclusive of Seigniorage charges but including blasting charges of Rs.100/cum and 25% machine crushing charges. However, if the metal is obtained from hand broken, the blasting and crushing charges shall be deducted. The aggregate shall be HB Stone of Granite, Dolomite, Dolerite and Trap. (Quartzite and Basalt with aggregate impact of less than 20)</i>		
11	Coir brush	Each	54.00
12	Copper sheet 16 SWG	kg	725.00
13	Coursed rubble stone 30 x 30 x 45 cm(excluding Seigniorage charges)	Each	32.00
14	Coursed rubble stone 30 x 30 x 60 cm(excluding Seigniorage charges)	Each	38.00

Sl. No.	Description of material	Unit	Scheduled Rates
15	Curing Compound	Ltr	150.00
16	D - cord	Rm	11.00
17	Delay - noiseless trunk	Each	19.00
18	Detonating fuse coil	Rm	9.00
19	Detonating shock tube / Cord relays	Rm	39.00
20	Detonator delay type	Each	20.00
21	Detonator electric	Each	13.00
22	Detonator ordinary	Each	11.00
23	Empty cement bag	Each	7.00
24	Explosive ANFO	kg	70.00
25	Explosive ANFO high strength booster	kg	82.00
26	Explosive small dia (Kelvex-220 or equivalent)	kg	87.00
27 (a)	Fine aggregate/ sand(un-screened) for Concrete & Filtering items) (excluding Seigniorage charges)	cum	662.00
27 (b)	Fineaggregate/Sand(unscreened)for filling and blindage (excluding Seigniorage charges)	cum	662.00
28	Fine aggregate /Sand (Screened) for Mortar ,Plastering items and Sand blasting items (excluding Seigniorage charges)	cum	872.00
29	Geo-textile (filter fabric) 160 gsm	sqm	44.00
30	Geo-textile (filter fabric) 200 gsm	sqm	53.00
31	Geo-textile (filter fabric) 250 gsm	sqm	62.00
32	G I Pipe 100 mm dia B Class	Rm	893.00
33	G I Pipe 15 mm dia A class	Rm	112.00
34	G I pipe 25 mm dia A class	Rm	170.00
35	G I pipe 40 mm dia B class	Rm	288.00
36	G I pipe 50 mm dia A class	Rm	328.00
37	G I Pipe 80 mm dia B Class	Rm	589.00
38	G.I Bolts / Nuts and Washers	kg	104.00
39 (a)	G.I sheet (plain)	tonne	68013.00
39 (b)	G.I sheet (Corrugated)	tonne	67759.00
40	Hariyala turfing sods	sqm	45.00
41	Hectometer stone one line dressed	Each	369.00
42	Hemp yarn	kg	89.00
43	Honne wood planks	cum	69762.00
44	Hume pipe with collar 150 mm dia	Rm	369.00
45	Hume pipe with collar 300 mm dia	Rm	630.00
46	J- Bolts 30 cm long	Each	50.00
47	Jungle wood planks	cum	30958.00
48	Khandki stone 15 to 20 cm height	Each	19.00
49	Khandki stone 20 to 25 cm height	Each	22.00
50	Khandki stone 25 to 30 cm height	Each	25.00
51	Kilometer stone one line dressed	Each	551.00
52	LDPE sheet (Geo membrane) 500 micron thick	sqm	113.00
53	LDPE sheet (Geo membrane) 750 micron thick	sqm	156.00

Sl. No.	Description of material	Unit	Scheduled Rates
54	LDPE sheet (Geo membrane) 1000 micron thick	sqm	205.00
55	M S Bolts / Nuts / Washers	kg	89.00
56	Murum(including loading charges but excluding Seigniorage charges)	cum	268.00
57	Oxalic acid	Ltr	95.00
58	Oxygen gas	cum	59.00
59	PVC sealing strip	Rm	54.00
60	PVC water stopper 310 mm wide	Rm	459.00
61	PVC pipe of 100 mm dia	Rm	181.00
62*	Reinforcement steel (HYSD/TMT) from steel producers like TATA, SAIL, VSP, JSW,Jindal Panther, Shyam Steel, Goel TMT, and Balaji Shakti, AF Star TMT/MS Life TMT, Radha TMT, Sugna TMT *(Note: As per Monthly rate fixed by Sub-Committee)	tonne	*60,000.00
63	Resin bond Cement capsule	Each	59.00
64	Rough stone 20 x 20 x 75 cm (Including Loading charges but excluding Seigniorage Charges)	Each	43.00
65(a)	Shahabad stone slab polished (including loading charges but excluding Seigniorage charges)	sqm	299.00
65(b)	Shahabad stone slab non polished (including loading charges but excluding Seigniorage charges)		244.00
66	Stone chips (at dump yard/Spoil)(including loading charges but excluding Seigniorage charges)	cum	239.00
67	Stone chips (at quarry)(including loading charges but excluding Seigniorage charges)	cum	567.00
68	Structural steel angle / channel / beam / bars *(Note: As per Monthly rate fixed by Sub-Committee)	tonne	*61,000
69	Structural steel plate / flats (including loading charges) *(Note: As per Monthly rate fixed by Sub-Committee)	tonne	*68,000
70	Super Plasticizer (Conplast RP-264 or equivalent)	kg	67.00
71	Synthetic Enamel paint 1st quality	Ltr	240.00
72	Synthetic adhesive (Resin + Hardener)	Kg	347.00
73	Tar felt joint filler board 12 mm thick	sqm	410.00
74	Tar felt joint filler board 20 mm thick	sqm	627.00
75	Through stones 20 x 20 x 30 to 45 cm (including loading charges but excluding Seigniorage charges)	Each	30.00
76	Through stones 25 x 25 x 45 to 60 cm long (including loading charges but excluding Seigniorage charges)	Each	55.00
77	Through stones 30 x 30 x 65 to 75 cm long (including loading charges but excluding Seigniorage charges)	Each	84.00
78	Un-coursed rubble stones (at dump yard /Spoil) (including loading charges but excluding Seigniorage charges)	cum	229.00
79	Un-coursed rubble stones (at quarry)(including loading charges but excluding Seigniorage charges)	cum	438.00
80	Water proofing compound	kg	113.00

Sl. No.	Description of material	Unit	Scheduled Rates
81	Welding electrodes 4 mm dia	Each	13.00
82	Wire brush	Each	46.00
83	Wire mesh 20 gauge	sqm	250.00
84	Zinc chromate red oxide primer paint	Ltr	181.00
85	inorganic zinc silicate	Ltr	531.00
86	solvent less coal tar epoxy paint	Ltr	242.00
87	Zinc phosphate primer	Ltr	194.00
88	Allkyd based iron oxide paint	Ltr	168.00
89 (a)	a) Cost of hdpe (75mm dia) (6 kg/cm ²)	Rm	200.00
89 (b)	b) light black MS casing pipe 80mm dia (4mm thick)	Rm	671.00
90	welded steel wire fabric 100X100X5 mm size	Kg	191.00
91	Protective Mastic	Ltr	472.00
92	Solventless coal tar epoxy (brown)	Ltr	242.00
93	Excavation of drain with Excavator	cum	50.00
94	Crushed stone sand/Rock sand 4.75mm to 2.36 mm as per IS 383 (1970) (excluding Seigniorage charges)	Cum	626.00
95	Fly ash conforming to IS: 3812 (Part II & I)	Cum	79.00
96	Benching old embankment slopes 0.45 X 0.45 M	RM	9.00
97	Laying of Sand Bags in the stipulated places including cost of empty cement bag, sand, thread, stitching charges and labour charges etc., with 13.615% overhead charges and contractors profit.	per bag	39.00
98	Rough stone for revetment 225mm thick (including Loading charges but excluding Seigniorage charges)	cum	240.00
99	Eradication of Weed growth from Drains, Canals by spraying Chemicals	sqm	4.00
100	Thinner	Ltr	92.00
101	Credit for excavated rock found suitable for use	Cum	234.00
102	Earth Cost or compensation for earth taken from private land (Excluding Seigniorage Charges)	Cum	76.00

*(Note: As per Monthly rate fixed by Sub-Committee) -May 2023 Month Rate

MATERIALS FOR GATES & HOISTS **FOR THE YEAR 2023-24**

GUIDE LINES

1. For cast steel / Alloy steel / Forged steel / Bronze, aluminum alloy components the rates shall be inclusive of cost of basic metal for these components, casting / forging charges, machining charges and applicable excise duty on finished alloy component.
2. For other materials the rates shall be prevailing market rates.

Sl. No.	Description of material	Unit	Scheduled Rates
1	Alloy steel (IS : 1570-carbon steel) shafts	Kg	265
2	Alloy steel (IS : 1570-stainless steel) pins	Kg	452
3	Bolt / Nut / Washer (hot dipped galvanized)	Kg	130
4	Bolt / Nut / Washer (stainless steel)	Kg	338
5(a)	Bronze (IS:305)bearings/bushes	Kg	1017
5(b)	Aluminium (IS:305)bearings/bushes	Kg	394
6	Cast iron blocks	Kg	94
7	Cast steel drums / gears	Kg	261
8	Cast steel pinions	Kg	240
9	Cast steel wheels / pulleys / hubs / rollers / retainers	Kg	198
10	Chemical for de-greasing/ derusting/phosphate coating	Liter	166
11	Coal tar epoxy paint	Liter	234
12	Forged steel hooks / shackles	Kg	272
13	MS pipe 200 / 300 mm dia	Kg	183
14	MS pipe 32 mm dia	Rm	204
15	MS pipe 25 mm dia	Rm	174
16(a)	Rubber bottom seal (IS : 11855) 120 X 16 mm	Rm	872
16(b)	Rubber bottom seal (IS : 11855) 120 X 20 mm	Rm	986
17(a)	Rubber side seal (music note type Teflon claded) (IS : 11855) 36Φ 113 X 14 mm	Rm	2376
17(b)	Rubber side seal (music note type Teflon claded) (IS : 11855) 50Φ 125 X 16 mm	Rm	3663
18(a)	Rubber side seal (music note type uncladed) (IS : 11855) 36Φ 113 X 14 mm	Rm	1883
18(b)	Rubber side seal (music note type uncladed) (IS : 11855) 50Φ 125 X 16 mm	Rm	2737
19	Rubber side seal Z-type (IS : 11855)	Rm	2472
20(a)	Rubber corner seal (Teflon claded) (IS : 11855) 36Φ 113 X 14 mm	Each	3302
20(b)	Rubber corner seal (Teflon claded) (IS : 11855) 50Φ 125 X 16 mm	Each	4237
21(a)	Rubber corner seal (un claded) (IS : 11855) 36Φ 113 X 14 mm	Each	2705
21(b)	Rubber corner seal (un claded) (IS : 11855) 50Φ 125 X 16 mm	Each	3420

Sl. No.	Description of material	Unit	Scheduled Rates
22	Stainless steel plates / flats	Kg	313
23	Welding electrode 4 mm dia x 450 mm (radiographic low hydrogen)	Each	23
24	Welding electrode 4 mm dia x 450 mm (stainless steel)	Each	28
25	Wire rope 6x37 constn (IS : 2266)	Kg	280
26	Zinc	Kg	227
27	Zinc rich (zinc content : 90 %) epoxy primer	Liter	696

DETAILS OF CAPITAL COST OF MACHINERY / EQUIPMENT
GUIDE LINES FOR FIXING CAPITAL COST OF MACHINERY / EQUIPMENT
FOR THE YEAR 2023-24

1. The Capital cost of machinery / equipment shall be for new machinery / equipment and shall be exclusive of all taxes, duties, other levies.
2. The cost of transport vehicles / equipment shall be exclusive of cost of tyres and tubes.
3. The cost of drill rods / drill bits / air hose / water hose / road tax / insurance charges and other consumable accessories shall not be included in the capital cost.
4. In cases, where the current capital cost of machinery / equipment could not be collected through enquiries, the capital cost considered for previous year may be updated on the basis of average percentage increase / decrease in the index for machinery published in the R.B.I Bulletin.

Sl. No.	Description of material	Unit	Scheduled Rates
1	Agitator car / Transit mixer 2 cum (excluding tyres)	Each	24,94,550.00
	tyres and tubes 6 sets		1,10,300.00
2	Air compressor 5 cmm electric	Each	8,04,550.00
3	Air compressor 7 cmm diesel	Each	10,60,200.00
4	Air compressor 7 cmm electric	Each	10,46,700.00
5	Air compressor 8.5 cmm diesel	Each	12,01,450.00
6	Air compressor 8.5 cmm electric	Each	12,41,750.00
7	Air compressor 15 cmm electric	Each	15,62,900.00
8	Angle Dozer 90 hp	Each	60,05,800.00
9	Batching plant 0.5 cum with accessories	Each	14,14,650.00
10	Batching plant 2 x 1.00 cum with accessories	Each	47,32,450.00
11	Batching plant 2 x 1.50 cum with accessories	Each	61,14,000.00
12	Bending machine	Each	6,01,150.00
13	Clamp shell and hoisting ropes	Each	35,350.00
14	Concrete bucket 1.5 cum	Each	61,850.00
15	Concrete hand mixer 45/30 ltr	Each	19,400.00
16	Concrete mixer 300/200 ltr(diesel)	Each	1,76,050.00
17	Concrete mixer 300/200 ltr (electric)	Each	1,74,300.00
18	Concrete mixer 600/400 ltr(diesel)	Each	2,87,350.00
19	Concrete mixer 600/400 ltr (electric)	Each	2,81,400.00
20	Concrete paver 100 Sqm / hr	Each	25,97,100.00
21	Convey mucker (excluding tyres)	Each	42,88,150.00
	tyres and tubes 6 sets		1,04,800.00
22	Core drilling machine	Each	12,46,650.00
23	Diesel generating set 30 KVA	Each	5,67,600.00
24	Diesel generating set 50 KVA	Each	8,35,500.00
25	Diesel Loco 45 hp	Each	23,10,350.00
26	Dewatering pump 5 hp diesel	Each	39,750.00
27	Dewatering pump 5 hp electric	Each	29,450.00
28	Dewatering pump 10 hp diesel	Each	68,200.00
29	Dewatering pump 10 hp electric	Each	62,950.00
30	Dewatering pump 20 hp diesel	Each	2,17,500.00
31	Dewatering pump 20 hp electric	Each	1,22,850.00
32	Drifter	Each	11,95,750.00
33	Drilling jumbo (excluding tyres)	Each	14,32,250.00

Sl. No.	Description of material	Unit	Scheduled Rates
	tyres and tubes 6 sets		1,04,550.00
34	Dumper 4.5 cum (excluding tyres)	Each	17,10,850.00
	tyres and tubes 6 sets		1,03,700.00
35	Geophysical Ele.resistivity meter	Each	5,57,100.00
36	Grouting pump	Each	1,64,500.00
37	Guniting / sand blasting equipment	Each	3,20,100.00
38	Ice plant with accessories 30 t / day	Each	28,61,650.00
39	Jack hammer	Each	77,450.00
40	Needle vibrator 40 mm petrol	Each	17,550.00
41	Needle vibrator 40 mm electric	Each	16,400.00
42	Needle vibrator 60 mm petrol	Each	18,500.00
43	Needle vibrator 60 mm electric	Each	18,150.00
44	Planing machine 4 m stroke	Each	8,49,500.00
45	Plate shearing machine up to 12 mm	Each	5,32,200.00
46	Pneumatic placer 0.5 cum	Each	6,73,800.00
47	Pneumatic tamper	Each	98,300.00
48	Pug cutting machine	Each	20,500.00
49	Pusher leg	Each	58,500.00
50	Road roller diesel 10 t	Each	10,36,000.00
51	Shovel 0.50 cum 75 hp	Each	40,31,450.00
52	Shovel 0.85 cum 110 hp	Each	69,25,600.00
53	Stationery derrick crane 5 t	Each	7,08,800.00
54	Tipper 5 cum (excluding tyres)	Each	19,85,100.00
	tyres and tubes 6 sets		1,02,500.00
55	Tipping tub 1.5 cum	Each	2,91,900.00
56	Tower crane 5 tonne	Each	85,54,150.00
57	Transformer 250 KVA	Each	5,11,350.00
58	Truck 10 t (excluding tyres)	Each	17,54,500.00
	tyres and tubes 6 sets		1,04,550.00
59	Truck mounted derrick crane 5 t (excluding tyres)	Each	25,66,400.00
	tyres and tubes 6 sets		1,03,700.00
60	Upright drilling machine	Each	67,200.00
61	Ventilation fan 20 hp	Each	3,01,100.00
62	Vibratory pad foot roller 8 t	Each	32,08,500.00
63	Wagon drill	Each	7,19,700.00
64	Water tanker 8000 ltr (excluding tyres)	Each	16,09,700.00
	tyres and tubes 6 sets		1,03,700.00
65	Welding set	Each	53,000.00
66	Winch 35 hp electric	Each	4,31,200.00
67	Hydraulic Truck Crane 30T	Each	1,70,43,400.00
	tyres and tubes 6 sets		2,19,350.00
68	Hydraulic Truck Crane 16T	Each	1,10,37,650.00
	tyres and tubes 6 sets		2,28,150.00
69	Heavy Duty Airless Spray Painting Equipment	Each	5,43,100.00
70*	Tractor with 2T Roller (R&B) Hire Charges item no 11	Each	512.00

ACCESSORIES TO MACHINERY / EQUIPMENT
FOR THE YEAR 2023-24

Sl. No.	Description of material	Unit	Scheduled Rates
1	Casing shoe bit	Each	10,850.00
2	Diamond core bit BX size	Each	11,640.00
3	Diamond core bit NX size	Each	13,150.00
4	Double tube core barrel	Each	15,340.00
5	Extension drill rod with coupling sleeve	Rm	2,520.00
6	Jack hammer drill rod 1.5 m	Each	5,660.00
7	Jack hammer drill rod 2.5 m	Each	6,840.00
8	Nozzle for Guniting / sand blasting gun	Each	825.00
9	Paving Cylinder	Each	30,060.00
10	Rails 30R (30 kg / m)	tonne	56,950.00
11	Reamer shell	Each	5,910.00
12	T.C. Cross bit 50 mm dia	Each	5,440.00
13	T.C. Cross bit 75 mm dia	Each	11,990.00
14	T.C. Cross bit 100 mm dia	Each	13,820.00
15	Tyres and Tubes for truck	Set	18,340.00
16	Wire rope 16 mm dia	Rm	290.00

OTHER COSTS ON MATERIAL / MACHINERY / EQUIPMENT
FOR THE YEAR 2023-24

1. The rate provided for 'SUNDRIES' (Lump sum provision for unquantified inputs in the data rates) shall be updated on the basis of general percentage increase / decrease in the market rates or on the basis of R.B.I 'All Commodity' index.
2. The rate for structural steel fabrication shall include cost of all materials (except structural steel), machinery, labour and one coat of primer painting.
3. Demand charges and electric power charges shall be as per prevailing TSSPDCL tariff.
4. Rate of interest on capital cost shall be as approved by Government or other competent authority.

Sl No.	DESCRIPTION OF MATERIAL	UNIT	Scheduled Rate
1	Air hose 25 mm dia	Rm	190.00
2	Air hose 50 mm dia	Rm	284.00
3	Demand charges (HT-I : General-11 KVA category) on power supply	KVA / month	457.00
4	Diesel	Ltr	97.82
5	Electric power (HT-VIII Category) including tax (1.5 times of the Tariff of HT-I(A): General-11 KVA category)	Kwhr	12.00
6	Excise duty on Gates / Hoist supplies	%	0.00
7	Insurance charges on machinery	% / annum	0.00
8	Interest on capital cost	% / annum	9%
9	Lubricants	Ltr	252.00
10	Petrol	Ltr	109.66
11	Rivets	Kg	108.00
12	Road tax on transport vehicles	Rs./annum	R.T.A
13	Shalimastic sealing compound	Kg	111.00
14	Shutter oil	Ltr	42.00
15	Structural steel fabrication	Kg	37.00
16	Sundries (Lump sum for un quantified inputs)	LS	27.00
17	Water hose (pressure) 20 mm dia	Rm	184.00
18	Steel wedges	LS	19.00
19	Elbows / Nipple / Plugs etc.,	LS	23.00
20	Soldering materials	LS	20.00
21	Steam circulation arrangement	LS	21.00
22	Fuel charges (gas for heating)	LS	21.00
23	Vulcanizing materials	LS	23.00
24	Gas cutting set (2 No's 15 m hose and nozzle unit)	Each	16,664.00
25	Grease	Kg	290.00
26	Welding holder set (cable / holder / gloves / mask etc)	Each	9,382.00
27	Use rate of ropes	LS	184.00

MATERIALS FOR GATES AND HOISTS
FOR THE YEAR 2023-24

Sl. No.	Description of material	Unit	Scheduled Rates
1	Worm reducers	Each	2,46,000.00
2	Electric motor 20 hp(Double Shaft)	Each	1,16,810.00
3	Electric motor 17.5 hp(Double Shaft)	Each	84,350.00
4	Electric motor 12.5 hp(Double Shaft)	Each	71,160.00
5	Electric motor 5 hp(Double Shaft)	Each	34,310.00
6	Electric motor 3 hp (Double Shaft)	Each	22,700.00
7	Electric motor 2 hp (Double Shaft)	Each	13,370.00
8	Floating shaft 300 mm dia	Kg	221.00
9	Manual operating system	Each	31,860.00
10	Gate position indicator	Each	2,36,300.00
11	Ele-magnetic brake	Each	37,480.00
12	Electric cable / switch / control panel etc	LS	64,710.00
13	Wire rope sockets	Each	5,620.00

LABOUR RATES

LABOUR RATES
FOR THE YEAR 2023-24

Sl. No.	Category of Worker	Scheduled Rates for the Year 2023-24 (Rs)
I.	SKILLED CATEGORY:	
1	Bar bender	720
2	Black smith / Tin smith / Rivetor	605
3	Blaster	720
4	Carpenter Cl- I	720
5	Electrician (Licensed)	695
6	Fitter Cl- I	695
7	Floor Polisher / Tile Layer	605
8	Foreman	710
9	Gauge reader	600
10	Maistry / Work Inspector with Non-technical Qualification SSLC/SSC/HSC	720
11	Mason Cl- I / Brick layer Cl- I	610
12	Mechanic Cl- I	635
13	Operator Air compressor / DG set	635
14	Operator Batching plant	700
15	Operator Bus/Ambulance/ Lorry/ Tanker	700
16	Operator Concrete / Asphalt mixer	645
17	Operator Concrete / Asphalt paver	645
18	Operator Concrete pump / Placer/ ice plant	645
19	Operator Core drilling machine	700
20	Operator Crane/ Tower crane/ Cable way	700
21	Operator Drilling jumbo / Loco / Winch	635
22	Operator Grouting/ Guniting/ Shotcreting	635
23	Operator Jackhammer/Pneumatic tamper	635
24	Operator Pump / Ventilation fan	635
25	Operator Lathe/Drilling/Shearing machine	700
26	Operator Bending / Planing machine	635
27	Operator Road roller	705
28	Operator Shovel / Scraper / Dozer	705
29	Operator Spillway / Sluice gate	645
30	Operator Crusher / Conveyor / Mucker	645
31	Operator Tipper / Dumper / Transit mixer	700

Sl. No.	Category of Worker	Scheduled Rates for the Year 2023-24 (Rs)
32	Operator Concrete vibrator	645
33	Operator Vibratory plain / pad foot roller	640
34	Operator Wagon drill / Drifter	700
35	Painter Cl- I	700
36	Plumber / Pipe fitter	710
37	Sarang / Khalasi	635
38	Spun pipe moulder	640
39	Stone chiseller Cl- I / Stone cutter Cl- I	640
40	Struct. steel Fabricator / Marker / Erector	730
41	Welder / Gas Cutter	645
42	Welder (X-ray quality)	700
43	caulker	700
44	Bore Mechanic	700
45	Plumber Class-I	710
II.	SEMI SKILLED CATEGORY:	
1	Asphalt Sprayer / Boiler attendant	580
2	Bhisti	580
3	Boatman with boat	580
4	Carpenter Cl- II / Erector shuttering	580
5	Cartman with double bullock cart	635
6	Cartman with single bullock cart	580
7	Chavali / Navagani	580
8	Crowbarman / Jumper man	580
9	Fitter Cl- II	580
10	Gang man / Head / Survey mazdoor	580
11	Gardener / Trained mali	580
12	Helper Air compressor / DG set	580
13	Helper Batching plant	580
14	Helper Blasting	580
15	Helper Bus/ Ambulance/ Lorry/ Tanker	580
16	Helper Bending/Shearing/Planing machine	580
17	Helper Carpenter	580
18	Helper Concrete / Asphalt mixer	580
19	Helper Concrete / Asphalt paver	580
20	Helper Core drilling machine	580

Sl. No.	Category of Worker	Scheduled Rates for the Year 2023-24 (Rs)
21	Helper Crane/ Tower crane/ Cable way	580
22	Helper Drilling jumbo / Loco / Winch	580
23	Helper Fitter / Fabrication/Electrician	580
24	Helper Grouting/ Guniting/ Shotcreting	580
25	Helper Jack hammer / Pneumatic tamper	580
26	Helper Laboratory / Instrumentation	580
27	Helper Road roller	580
28	Helper Shovel / Scraper / Dozer	580
29	Helper Crusher / Conveyor / Mucker	580
30	Helper Tipper / Dumper/ Transit mixer	580
31	Helper Vibrator	580
32	Helper Vibratory plain/ pad foot roller	580
33	Helper Wagon drill/ Drifter	580
34	Lineman Electric / Telephone	580
35	Mason Cl- II / Brick layer Cl-II	580
36	Mechanic Cl- II	580
37	Painter Cl- II	580
38	Patkari / Neeraganti / Sowdy	580
39	Stone Chiseller Cl- II	580
40	Stone breaker / Hammer man	580
41	Valve man / Canal sluice operator	580
42	Plumber Class-II	580
43	Sewer Cleaner	580
III.	UN-SKILLED CATEGORY:	
1	Cement / Asphalt handling mazdoor	545
2	Civic worker	545
3	Man mazdoor	545
4	Woman mazdoor	545
5	Watchman	545
IV.	OTHER CATEGORY:	
1	Care-taker / conductor / Lift Attender	580
2	Cook / Mess man	580
3	Dhobi	580
4	Diploma Engineer / Surveyor	1035
5	Diver with headgear	700

Sl. No.	Category of Worker	Scheduled Rates for the Year 2023-24 (Rs)
6	Graduate / Laboratory Assistant	720
7	Graduate Engineer/ Geologist	1315
8	Horticulture Assistant / Photographer	635
9	ITI certificate holder / Tracer / Printer	730
10	Literate mazdoor	545
11	Stenographer / Computer Operator	760
12	Telephone / Wireless Operator	710
13	Typist / Job Typist	710
14	CAD operator with Diploma in Engineering/General degree with CAD certificate	1035
15	Jeep Driver	680
16	Data Processing Operator	915
17	Laboratory Chemist with M.Sc/B.sc Chemistry having Computer Knowledge./ Laboratory Microbiologist with M.Sc / B .Sc Microbiology or B.Sc with BZC having Computer Knowledge.	1035

Note:-

1. The wage should not be less than the minimum wages of schedule of employment, subject to out turn.
2. 25% extra over the corresponding Labour rates in respect of the work to be done during night time subject to issue of certificate accordingly by the concerned estimate sanctioning authority for providing in the data and by concerned Executive Engineer in charge of the work for payment. The night time allowance is applicable only to the works done under all Municipality limits only.

HIRE CHARGES

HIRE CHARGES OF MACHINERY **FOR THE YEAR 2023-24**

Sl. No	Description of machinery	Unit	Hire charge in Rs	Fuel charge in Rs	Crew Charge in Rs.	Total in Rs
1	2	3	4	5	6	7
1	Agitator car / Transit mixer 2 cum	Hour	851.70	1479.50	399.40	2730.60
2	Air compressor 5 cmm (electric)	Hour	114.40	362.60	236.90	713.90
3	Air compressor 7 cmm (diesel)	Hour	255.00	1210.50	303.30	1768.80
4	Air compressor 7 cmm (electric)	Hour	148.80	483.40	236.90	869.10
5	Air compressor 8.5 cmm (diesel	Hour	288.90	1513.20	303.30	2105.40
6	Air compressor 8.5 cmm (electric)	Hour	176.60	604.30	236.90	1017.80
7	Air compressor 15 cmm (electric)	Hour	142.00	1342.80	252.70	1737.50
8	Angle Dozer 90 hp	Hour	1799.20	1035.00	334.10	3168.30
9	Batching plant 0.5 cum(6 cum/hr)	Hour	121.70	161.10	479.10	761.90
10	Batching plant 2 x 1.00 cum(15 cum/hr)	Hour	407.00	483.40	479.10	1369.50
11	Batching plant 2 x 1.50 cum(50 cum/hr)	Hour	525.80	590.80	479.10	1595.70
12	Bending machine 3000 x 12 mm	Hour	43.50	161.10	189.50	394.10
13	Clamp shell and hoisting ropes	Hour	6.40	0.00	0.00	6.40
14	Concrete bucket 1.5 cum	Hour	16.80	0.00	0.00	16.80
15	Concrete hand mixer 45 / 30 ltr	Hour	6.60	0.00	0.00	6.60
16	Concrete mixer 300 / 200 (diesel)	Hour	60.20	134.50	318.50	513.20
17	Concrete mixer 300 / 200 ltr (electric)	Hour	59.60	53.70	318.50	431.80
18	Concrete mixer 600 / 400 (diesel)	Hour	98.20	269.00	318.50	685.70
19	Concrete mixer 600 / 400 ltr (electric	Hour	96.10	107.40	318.50	522.00
20	Concrete paver 100 sqm / hr	Hour	359.00	0.00	611.50	970.50
21	Convey mucker	Hour	879.00	373.80	254.80	1507.60
22	Core drilling machine	Hour	340.50	403.50	399.40	1143.40
23	Diesel generating set 30 KVA	Hour	70.80	1076.00	189.50	1336.30
24	Diesel generating set 50 KVA	Hour	104.20	1614.00	189.50	1907.70
25	Diesel Loco 45 hp	Hour	392.00	907.90	236.90	1536.80
26	Dewatering pump 5 hp (diesel)	Hour	9.60	134.50	158.50	302.60
27	Dewatering pump 5 hp (electric)	Hour	3.30	53.70	118.80	175.80
28	Dewatering pump 10 hp (diesel)	Hour	16.40	269.00	158.50	443.90
29	Dewatering pump 10 hp (electric	Hour	7.10	107.40	118.80	233.30
30	Dewatering pump 20 hp (diesel)	Hour	52.30	538.00	158.50	748.80
31	Dewatering pump 20 hp (electric	Hour	13.90	214.80	118.80	347.50
32	Drifter	Hour	340.00	0.00	499.20	839.20
33	Drilling jumbo	Hour	397.20	72.60	252.70	722.50
34	Dumper 4.5 cum	Hour	661.90	677.90	319.50	1659.30
35	Geophysical Electric resistivity meter	Hour	111.10	0.00	0.00	111.10
36	Grouting pump	Hour	37.40	53.70	379.10	470.20

Sl. No	Description of machinery	Unit	Hire charge in Rs	Fuel charge in Rs	Crew Charge in Rs.	Total in Rs
37	Guniting / sand blast equipment	Hour	121.10	0.00	315.90	437.00
38	Ice plant & accessories 30 t / day	Hour	191.00	1530.80	191.10	1912.90
39	Jack hammer	Hour	22.00	0.00	473.90	495.90
40	Needle vibrator 40 mm (petrol)	Hour	6.50	30.20	229.30	266.00
41	Needle vibrator 40 mm (electric)	Hour	6.10	10.70	229.30	246.10
42	Needle vibrator 60 mm (petrol)	Hour	6.80	45.20	229.30	281.30
43	Needle vibrator 60 mm (electric)	Hour	6.70	16.10	229.30	252.10
44	Planing machine 4 m stroke	Hour	117.40	161.10	303.30	581.80
45	Plate shearing machine upto 12 mm	Hour	48.30	214.80	199.70	462.80
46	Pneumatic placer 0.5 cum	Hour	191.20	0.00	125.80	317.00
47	Pneumatic tamper	Hour	22.40	0.00	379.10	401.50
48	Pug cutting machine	Hour	7.80	5.40	0.00	13.20
49	Pusher leg	Hour	13.30	0.00	0.00	13.30
50	Road roller diesel 10 t	Hour	226.40	1210.50	320.70	1757.60
51	Shovel 0.50 cum 75 hp	Hour	1023.00	807.00	334.10	2164.10
52	Shovel 0.85 cum 110 hp	Hour	1757.40	1479.50	334.10	3571.00
53	Stationery derrick crane	Hour	86.20	0.00	0.00	86.20
54	Tipper 5 cum	Hour	520.00	508.40	249.60	1278.00
55	Tipping tub 1.5 cum	Hour	74.80	0.00	0.00	74.80
56	Tower crane 5 tonne	Hour	902.50	279.30	266.20	1448.00
57	Transformer 250 KVA	Hour	5383.40	0.00	0.00	5383.40
58	Truck 10 t	Hour	474.30	508.40	249.60	1232.30
59	Truck mounted derrick crane 5 t	Hour	641.80	508.40	249.60	1399.80
60	Upright drilling machine/Grinder	Hour	25.60	53.70	273.00	352.30
61	Ventilation fan 20 hp	Hour	12.30	214.80	41.00	268.10
62	Vibratory pad foot roller 8 t	Hour	1405.70	1748.50	380.60	3534.80
63	Wagon drill	Hour	196.60	0.00	399.40	596.00
64	Water tanker 8000 ltr	Hour	443.30	508.40	249.60	1201.30
65	Welding set	Hour	16.50	128.90	0.00	145.40
66	Winch 35 hp (electric)	Hour	141.50	263.20	379.10	783.80
67*	Tractor with 2T roller	Hour	0.00	0.00	0.00	512.00
68	Hydraulic Truck Crane 30T	Hour	3418.30	118.80	753.80	4290.90
69	Hydraulic Truck Crane 16T	Hour	2304.50	75.00	753.80	3133.30
70	Heavy Duty Airless Spray Painting Equipment	Hour	131.60			131.60

***Part-II -R&B(SR, CRN&PPP) Hire Charges Item No.11 Data**

CONVEYANCE CHARGES OF MATERIAL

LEAD/LIFT/LOADING & UNLOADING CHARGES **FOR THE YEAR 2023-24**

LEAD, LIFT, LOADING AND UNLOADING CHARGES FOR MATERIALS

1. For total lead up to 150 m (including initial lead) lead charges by head load only shall be adopted irrespective of mode of conveyance.
2. For total lead exceeding 150 m conveyance by mechanical means only shall be adopted irrespective of mode of conveyance.
3. The rates for loading at quarry including idle hire charges of trucks and hire charges per for each kilometre and up to 5 km are cumulative and inclusive of total charges for preceding lead.
4. Unless otherwise specified lead charges for Earth / Sand / Gravel / Aggregates and Stones are for loose volume and not for compacted or in-situ volume.
5. The rates for lift charges, lead charges, hire charges are cumulative and inclusive of rates for preceding lift, lead and hire charges
6. Lift charges are not payable where conveyance of materials is by mechanical means to final placing point.
7. Loading and unloading charges are not payable for conveyance by head load.
8. Loading charges are not payable for conveyance by mechanical means for disposal of excavated materials beyond initial lead of 50 m wherever specified.
9. Loading and unloading charges are not payable for conveyance by mechanical means for disposal of excavated materials beyond initial lead of 1 km wherever specified.
10. The rates for unloading of materials except earth, sand, gravel, coarse aggregate, rubble, size stone and cut stone are inclusive of stacking.
11. Hire charges are per 1KM for tippers and trucks for transport of materials from work site to dump yard and other places are cumulative & includes previous km up to 5 kms.
12. The lead & lift charges are inclusive of contractor's profit and overhead charges of 13.615%
13. *During the BoCE meeting held on 26.05.2016, it is observed that the in some of the estimates, Lead charges are being added directly to the material basic rates for arriving the finished item rate. In view of that, the BoCE has instructed to see that while arriving the finished item rate the lead charges are to be added to the material basic rates only after deducting the provision of Contractor's Profit and Overhead charges.*

COM-LDLFT-1

A. (Lead) Conveyance Charges for materials by head load

Sl No.	Total distance (Total lead includes initial lead)	Earth / Sand /Gravel / Murrum/ Lime/ Surki/ Size stone / Cut stone Rubble / Coarse aggregate Rs/Cum	Cement / Reinforcement steel / Structural steel Rs / tonne	PCC slab/ Shahbad slab / CC block/ BS slab/ Late-rite / Wood Rs / cum
1	2	3	4	5
1	Total lead upto 50 m (covered by item rate)	initial lead	initial lead	initial lead
2	Total lead upto 100 m	88.50	51.60	112.60
3	Total lead upto 150 m	176.90	103.20	225.20

Notes:

1. No loading or unloading charges are admissible for conveyance by head load.
2. For total lead exceeding 150 m conveyance charges by mechanical means only shall be adopted irrespective of mode of conveyance.
3. The Lead Charges are inclusive of 13.615% Contractor Profit and Overhead charges

COM-LDLFT-2

B. (Lead) Conveyance charges for machinery per kilometer for transporting materials by tippers and trucks excluding loading, unloading and idle hire charges of machinery.

(No loading and unloading charges allowed for machinery loading and unloading)

Sl No.	Distance	(Lead) charges for trucks and tippers for Earth / Sand /Gravel / Murrum/ Lime/ Surki/ per cu.meter	(Lead) charges for trucks and tippers for Rubble/Size stones/ Cut Stones/ Coarse aggregate per cu.meter	(Lead) charges for trucks and tippers for Cement/ Steel/ RCC poles/ AC & GI sheets/ Packed materials/ tonne	(Lead) charges for trucks and tippers per cu.meter for PCC slabs/ Shahabad slabs/ CC & Laterite blocks/ Wood/ cum	(Lead) charges for trucks and tippers per cu.meter for water/ 1000 litres	(Lead) charges for trucks per 1000 Nos. of Bricks
1	2	3	4	5	6	7	8
1	Lead upto 1 km	43.60	42.00	26.30	61.80	25.60	70.00
2	Lead upto 2 km	61.00	58.80	36.80	86.50	35.80	98.00
3	Lead upto 3 km	81.30	81.30	50.80	119.60	47.80	130.70
4	Lead upto 4 km	98.70	98.70	61.70	145.20	58.00	158.70
5	Lead upto 5 km	116.20	116.20	72.60	170.80	68.20	186.70
6	for Every km beyond 5 km upto 30 km	17.40	17.40	10.90	25.60	10.20	28.00
7	for Every km beyond 30 km	14.50	14.50	9.10	21.40	8.50	23.30

Note: The Lead Charges are inclusive of 13.615% Contractor Profit and Overhead charges

COM-LDLFT-3

C. LOADING AND UNLOADING CHARGES BY MANUAL MEANS (idle hire charges of trucks are not added)

Sl No.	Description of item	Earth / Sand /Gravel / Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate,Lime in Rs/cum	cement in Rs/tonne	steel in Rs./tonne	brick work Rs/1000 No
1	2	3	4	5	6	7
1	Loading	29.30	58.70	96.80	116.10	80.70
2	Unloading	14.65	29.35	96.80	116.10	80.70

Note: The Lead Charges are inclusive of 13.615% Contractor Profit and Overhead charges

COM-LDLFT-4**D. LOADING AND UNLOADING CHARGES BY MANUAL MEANS (including idle hire charges of trucks)**

Sl No.	Description of item	Earth / Sand /Gravel Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate,Lime in Rs/cum	cement in Rs/tonne	steel in Rs./tonne	brick work Rs/1000 No
1	2	3	4	5	6	7
1	Loading	156.60	186.00	236.80	256.10	311.70
2	Unloading	56.90	93.00	236.80	256.10	311.70

COM-LDLFT-5**E. LOADING AND UNLOADING CHARGES BY MECHANICAL MEANS (including idle hire charges of trucks)**

Sl No.	Description of item	Earth / Sand /Gravel Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate,Lime in Rs/cum
1	2	3	4
1	Loading	72.00	135.60
2	Unloading	21.90	21.90

Note: The Lead Charges are inclusive of 13.615% Contractor Profit and Overhead charges

COM-LDLFT-6**F. LIFT CHARGES FOR MATERIALS BY HEAD LOAD**

Sl No.	Total lift (Total lift includes initial lift)	Earth / Sand /Gravel Murrum/ Lime / Surki/ Size stone / Cut stone Rubble / Coarse aggregate Rs / cum	Cement / Reinforcement steel /Structural steel Rs / tonne	PCC slab/ Shahbad slab / CC block/ BS slab / Laterite / Wood Rs / cum
1	2	3	4	5
1	Total lift upto 3 m (covered by item rate)	Initial lift	Initial lift	Initial lift
2	For Every 1.00 Lift beyond initial lift of 3 meters	10.30	7.50	13.80

PART-II
ROADS & BRIDGES WORKS

PART-II INDEX

Roads & Bridge Works

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LABOUR RATES

Sl. No	S.S. Item No.	Description	Unit (Per)	Scheduled Rate	Remarks
1	2	3	4	5	6
(A) SKILLED WORKMEN					
		First Class			
1	a	stone cutter	Day	640	As per I&CAD (S.No.39)
2	b	Mason Cl-I/Brick Layer	Day	610	As per I&CAD (S.No.11)
3	c	Carpenter	Day	720	As per I&CAD (S.No.4)
4	d	Painter	Day	700	As per I&CAD (S.No.35)
5	e	Plumber	Day	710	As per I&CAD (S.No.36)
6	f	Welder	Day	645	As per I&CAD (S.No.41)
7	g	Fitter	Day	695	As per I&CAD (S.No.6)
8	h	Electrician	Day	695	As per I&CAD (S.No.5)
9	1	Cook	Day	580	As per I&CAD (S.No.2) Other Category
10	2	Mechanic	Day	635	As per I&CAD (S.No.12)
12	6	Blaster(licensed)	Day	720	As per I&CAD (S.No.3)
13	3	Barbender	Day	720	As per I&CAD (S.No.1)
14	7	Tipper and Heavy Vehicle Driver above 12 T	Day	700	As per I&CAD (S.No.15)
15		Road Roller Driver (7.5 T to 12 T)	Day	705	As per I&CAD (S.No.27)
		Operator			
16		Concrete Mixer	Day	645	As per I&CAD (S.No.16)
17		Vibrator	Day	645	As per I&CAD (S.No.32)
18		Jack Hammer	Day	635	As per I&CAD (S.No.23)
19		Driller	Day	700	As per I&CAD (S.No.34)
20	11	Pump operator	Day	635	As per I&CAD (S.No.24)
21	13	Wireless Operator	Day	710	As per I&CAD (S.No.12) Other Category
22	15	Jeep Driver	Day	680	As per I&CAD (S.No.15) Other Category
23	16	Work Inspector with I.T.I qualification	Day	730	As per I&CAD (S.No.9) Other Category
24	17	Work Inspector with LCE, LME, L.E.E qualification	Day	1035	As per I&CAD (S.No.4) Other Category
25	18	Work Inspector with B.E (Civil Mechanical and Electrical qualification	Day	1315	As per I&CAD (S.No.7) Other Category
26	19	Work Inspector with Non-technical qualification SSLC/SSC/HSC	Day	720	As per I&CAD (S.No.10)
27	27 a(i)	Typist/Job Typist	Day	710	As per I&CAD (S.No.13) Other Category
28	a(ii)	Computer operator	Day	760	As per I&CAD (S.No.11) Other Category
29	b	"CAD Operator with Diploma in Engineering /General degree with	Day	1035	As per I&CAD (S.No.14) Other Category

		CAD certificate"			
(B) SEMI -SKILLED WORKMEN					
SECOND CLASS					
30	1	Mason	Day	580	As per I&CAD (S.No.35) Semi-Skilled
31	b	Brick Layer and Stone Cutter	Day	580	As per I&CAD (S.No.35) Semi-Skilled
32	c	Carpenter	Day	580	As per I&CAD (S.No.4) Semi-Skilled
33	d	Painter	Day	580	As per I&CAD (S.No.37) Semi-Skilled
34	10	Telephone Operator	Day	710	As per I&CAD (S.No.12) Other Category
35	13	Hammer Man	Day	580	As per I&CAD (S.No.40) Semi-skilled
36	1	Head Mazdoor (Mukaddar)	Day	580	As per I&CAD (S.No.10) Semi Skilled
(C) UNSKILLED WORKMEN					
37	2	Man Mazdoor	Day	545	As per I&CAD (S.No.3) Un-Skilled
38	3	Watch Man	Day	545	As per I&CAD (S.No.5) Un-Skilled
39	5	Woman Mazdoor	Day	545	As per I&CAD (S.No.4) Un-Skilled
Note : Whenever unskilled workmen are engaged for cleaning of Sewers & Septic Tanks, they may be paid double of the above wages.					
(D) OTHER CONVEYANCE ITEMS					
40	1	Single bullock with driver and cart	Day	580	As per I&CAD (S.No.6) Semi Skilled
41	3	Bullock pair with driver and cart	Day	635	As per I&CAD (S.No.5) Semi Skilled
42	6	Nava with crew	Day	580	As per I&CAD (S.No.3) Semi Skilled

Note:

1. The wage should not be less than the minimum wages of schedule of employment, subject to out turn.
2. 25% extra over the corresponding labour rates in respect of the work to be done during night time subject to issue of certificate accordingly by the concerned estimate sanctioning authority for providing in the data and by concerned Executive Engineer in charge of the work for payment. The night time allowance is applicable only to the works done under Greater Hyderabad Municipal Corporation and Greater Warangal Municipal Corporation limits only.

MATERIAL RATES

Sl. No	S.S. Item No	Description	Unit	Schedule d Rate	Remarks
1	2	3	4	5	6
		(A) STONE AND ROAD MATERIALS			
		ROUGH STONE QUARRIED INCLUDING WEDGING, BREAKING, BURNING, SPLITTING			
1	22.a	For R.R Masonry Work (other than Granite, Dolomite and Trap	1 cum	168	
2	b.i	For SS Revetment work 225 mm	1 cum	168	
3	b.ii	For SS Revetment work 300 mm	1 cum	173	
4	b.iii	For SS Revetment work 450 mm	1 cum	143	
5	c	Jeddy Stone above 450 mm to 600 mm	1 cum	198	
6	d i.	Laterite for revetment 225 mm	1 cum	124	
7	d II.	Laterite for revetment 300 mm	1 cum	145	
8	d.iii	Granite for revetment 225 mm	1 cum	162	
9	d.iv	Granite for revetment 300 mm	1 cum	164	
		Note:- Only when other than granite is not available			
10	e	Laterite for masonry	1 cum	143	
11	f	Cyclopean stones above 0.2 cum	1 cum	267	
12	g	For R.R.Masonry works (granite, dolomite and trap variety) including loading & unloading	1 cum	265	
13		NOTE:- For items 22(a) to 22© ,22d.iii,22d.iv 22(f) and 22(g) add extra Rs /cum, wherever quarrying is done by blasting	1 cum	100	
		COURSED RUBBLE STONE QUARRYING WEDGING, BREAKING, BURNING AND SPLITTING FOR SS FIRST SORT WORKS			
14	23.a	Granite, dolomite and trap	1 cum	276	
15	b	For other varieties	1 cum	198	
16	27	Granite stone slabs for culverts, lintels and copings (3 faces dressed coarsed rubble masonry)	1 cum	1819	
17		NOTE: - For items 23(a), 23(b) and 27 add extra Rs. Per Cum, wherever quarrying is done by blasting	1 cum	100	
18	28	Bond stones (600 x 200 x 200 mm)	each	32	
19	b	Chainage stones and Centre line stones (750x150x150xmm)	each	39	
	29 (a)	Kilometers stones (1100 x 370 x 250 mm)	each	Based on detailed analysis as per MoRTH Data	
	b	5th Kilometers stones (1520 x 520 x 250 mm)	each		
	30 (a)	Hectometers stones (900 x 200 x 200 mm)	each		
20	31	Demarcation Stones (900 x 150 x 150	each	74	

Sl. No	S.S. Item No	Description	Unit	Schedule Rate	Remarks
		mm)			
21	32.a	Guard Stones (1200 x 200 x 200 mm)	each	107	
22	b	Guide Stones (800 x 150 x150 mm)	each	74	
23	c	Carving letters and figures in stone up to 100 mm size	each	9	
24	d	Carving letters and figures in stone above 100 mm size	each	10	
		HARD BROKEN STONE OF GRANITE, TRAP AND DOLERITE FREE FROM DUST OBTAINED BY QUARRYING, WEDGING, BREAKING, BURNING AND SPLITTING .			
25	33.a	- do - 6mm size (IS383,1970)	1 cum	806	
26	b	- do - 10mm size (IS383,1970)	1 cum	957	
27	c	- do - 12mm size (IS383,1970)	1 cum	1057	
28	d	- do - 20mm size (IS383,1970)	1 cum	1108	
29	e	- do - 25mm size (IS383,1970)	1 cum	1098	
30	f	- do - 40mm size (IS383,1970)	1 cum	909	
31	g	- do - 50mm size (IS383,19705)	1 cum	655	
32	h	- do - 60mm size (IS383,1970)	1 cum	544	
33	i	- do - 65mm size (IS383,1970)	1 cum	493	
34	j	- do - 75mm size (IS383,1970)	1 cum	443	
35	k	- do - 75 to 100mm size (IS383,1970)	1 cum	443	
36		NOTE:- The above items from 33 a to 33 f the rates are inclusive of Rs.100/- blasting Charges and 25% Machine crushing charges. Items from 33g to 33k are including of only blasting charges		100	
37				25%	
38		(3) Deduct Rs. /- per cum if the metal or rubble is obtained from surface stone and boulders.		11	
39		(4) Add Rs. /- per cum for selection of stones and boulders from excavated spoil dumps for items 33 a to 33 k, when this addition of Rs. /- per Cum is allowed deduction of Rs. /- per Cum mentioned under Note (3) above should invariably be made.		19	
		SOFT BROKEN STONE SCREENED AND FREE FROM DUST			
40	33.l	- do - 40 mm size (IS383,1970)	1 Cum	130	
41	33.m	- do - 50 mm size (IS383,1970)	1 Cum	116	
42	33.n	- do - 60 mm size (IS383,1970)	1 Cum	92	
43	33.o	- do - 65 mm size (IS383,1970)	1 Cum	82	
44	33.p	- do - 75 mm size (IS383,1970)	1 Cum	76	
		HARD BROKEN STONE OF GRANITE TRAP DOLERITE AND DOLAMITE FREE			

Sl. No	S.S. Item No	Description	Unit	Schedule d Rate	Remarks
		FROM DUST OBTAINED BY QUARRYING WEDGING, BREAKING, BURNING AND SPLITTING (QUARTZITE AND BASALT WITH AGGREGATE IMPACT OF LESS THAN 20)			
45	33a	-do- 2.36 mm to 5 mm size (IRC, MORTH &MORD)	1 cum	705	
	b	-do- 5 mm to 7 mm size (IRC, MORTH & MORD)	1 cum	806	
46	c	-do- 9.5 mm to 11.2 mm size(IRC, MORTH & MORD)	1 cum	957	
47	d	-do- 12mm to 14 mm size (IRC, MORTH & MORD)	1 cum	1057	
48	e	-do- 19 mm to 22 mm size(IRC, MORTH & MORD)	1 cum	1108	
49	f	-do- 25 mm to 27 mm size(IRC, MORTH &MORD)	1 cum	1098	
50	g	-do- 40 mm to 45 mm size (IRC , MORTH &MORD)	1 cum	909	
51	h	-do- 50 mm to 55 mm size (IRC, MORTH & MORD)	1 cum	655	
52	i	-do- 60 mm to 63 mm size (IRC, MORTH &MORD)	1 cum	544	
53	j	-do- 65 mm size (IRC ,MORTH &MORD)	1 cum	493	
54	k	-do- 75 mm size (IRC,MORTH &MORD)	1 cum	443	
55	1	NOTE:- The above items from 33 a to 33 g the rates are inclusive of Rs.100/- blasting Charges and 25% Machine crushing charges. Items from 33h to 33k are including of only blasting charges	1 cum	100	
56	2		1 cum	25%	
57	3	(3) Deduct Rs. /- per cum if the metal or rubble is obtained from surface stone and boulders.	1 cum	11	
58	4	(4) Add Rs. /- per cum for selection of stones and boulders from excavated spoil dumps for items 33 a to 33 k, when this addition of Rs. /- per Cum is allowed deduction of Rs. /- per Cum mentioned under Note (3) above should invariably be made.	1 cum	19	
		HARD BROKEN STONE OTHER THAN GRANITE SUCH AS QUARTZ, QUARTZ-NAPA AND BASALT SCREENED AND FREE FROM DUST			
59	33.q	- do - 10 mm size (IS383,1970)	1 Cum	407	
60		-do- 9.5 mm to 11.2 mm size (IRC,MORTH & MORD)	1 Cum	407	

Sl. No	S.S. Item No	Description	Unit	Schedule d Rate	Remarks
61	r	- do - 12 mm size (IS383,1970)	1 Cum	381	
62		-do- 12mm to 14 mm size (IRC , MORTH & MORD)	1 Cum	381	
63	s	- do - 20 mm size (IS383,1970)	1 Cum	308	
64		-do- 19 mm to 22 mm size (IRC,MORTH & MORD)	1 Cum	308	
65	t	- do - 25 mm size (IS383,1970)	1 Cum	302	
66	u	- do - 40 mm size (IS383,1970)	1 Cum	179	
67		-do- 40 mm to 45 mm size (IRC , MORTH & MORD)	1 Cum	179	
68	v	- do - 50 mm size (IS383,1970)	1 Cum	158	
69		-do- 50 mm to 55 mm size (IRC,MORTH &MORD)	1 Cum	158	
70	33.w	- do - 65 mm size (IS383,1970)	1 Cum	150	
71		-do- 60 mm to 65 mm size (IRC, MORTH &MORD)	1 Cum	150	
72	x	- do - 75 mm size (IS383,1970)	1 Cum	123	
73		- do - 75 mm size (IRC ,MORTH & MORD)	1 Cum	123	
74	y	- do - 75 to 100 mm size (IS383,1970)	1 Cum	96	
75		- do - 75 to 100 mm (IRC, MORTH & MORD)	1 Cum	96	
		OTHER ITEMS			
76	33.z1	Laterite 40 to 75 mm (ring)	1 Cum	106	
77	z2	kankar, hard broken kankar 40 to 75 mm (ring)	1 Cum	79	
78	z3	Soling stone of 150 mm size of granite, trap and Dolomite varieties.	1 Cum	100	
79		NOTE:- (1) Add extra for items to 33(z3) Rs /- Per cum, wherever quarrying is done by blasting. (2) Wherever controlled blasting is resorted to the Chief Engineer concerned shall approve the observed data in support of SS item No. 22 a to 22 c , 22g, 23	1 Cum	100	
80	z4	Soling stone of 150 mm size other than granite variety	1 Cum	70	
81	z5	Soling Stone laterite, Kankar 150mm, surface stone	1 Cum	43	
82	z6	Field picked metal unbroken 20 mm size	1 Cum	58	
83	z7	- do - 25 mm size	1 Cum	44	
84	z8	- do - 40 mm size	1 Cum	51	
85	z9	- do - 50 mm size	1 Cum	44	
86	z10	- do - 60 mm size	1 Cum	38	
87	z11	- do - 80 mm size	1 Cum	33	
88	NOTE:- Add Rs. /- Per Cum for selection of				

Sl. No	S.S. Item No	Description	Unit	Schedule d Rate	Remarks
		stone and boulders from excavated spoil dumps for items 33 (Q) TO 33 Z , when this addition of Rs. /- Per cum is allowed deduction of Rs. /- per cum should invariably be made towards the metal or rubble if it is obtained from surface stone and boulders.			
89	34	Gravel	1 Cum	109	
90	35 a	Quarry rubbish	1 Cum	85	
91	b	HBG Stone Chips 2.36mm and below	1 Cum	567	As per I & CAD Rate
		NOTE: Add 25% extra per cum for item 91(b) if the metal is obtained by machine crushing excluding cost of blasting			
92	36.a	Sand for mortar, ceiling coat including washing screening etc.,	1 Cum	872	As per I & CAD Rate
93	36.b	Sand for Concrete	1 Cum	662	As per I & CAD Rate
94	36.c	Sand for filling and blindage	1 Cum	662	As per I & CAD Rate
95	37	Clay for puddle and masonry Items 38 (a) to 39 (h) As per local prevailing rates based on competitive quotations.	1 Cum	37	
		(C) LIME AND CEMENT			
96	40 to 41(c)	LIME	Metric Tonne		
97	42	Cement	Metric Tonne		
		NOTE: (1) The rate is material at site (No conveyance charges to be allowed) 2)As per the rates applicable to the District. 3) Least of the (1) and (2) above may allowed 4) The price of cement will be reviewed and fixed on monthly basis as per G.O.Ms.No.94 T,R&B Dept Dt16-4-2008 and rates will be communicated separately.			
98	42.a	Labour for mixing cement mortar	1 Cum	Based on detailed analysis as per MoRTH Data	
99	b	Mixing of cement mortar by machine	1 Cum		
100	c	Grinding lime mortar or Surkhi mortar	1 Cum	99	
101	d	Shell lime slaked and screened	1 Cum	989	
102	e	White cement	1 Kg.	Building SSR	
		(D) MORTARS			
103	43 to 45	Items 43 to 45		Rates have to be worked out based on Standard Data	

Sl. No	S.S. Item No	Description	Unit	Schedule d Rate	Remarks
		(E) METAL AND IRON WORKS			
104		Mild steel rods 6mm dia.	One Metric Tonne	Monthly Rates will be communicated by Govt.	
105		Mild steel flats	One Metric Tonne		
106		Mild Steel, Structural Steel, I.e., Angles, Channels and I sections.	One Metric Tonne		
107		High Yield Strength Deformed Bars	One Metric Tonne		
108		Mild Steel Plates	One Metric Tonne		
NOTE: (1) The rate are inclusive of sales tax. 2) As per the rates applicable to the District. 3) Least of the (1) and (2) above may allowed 4) The prices of steel will be reviewed and fixed on monthly basis as per G.O.Ms.No.94 T,R&B Dept, Dt 16-4-2008 and rates will be communicated separately.					
		III RATES OF WORKS			
		(A) CLEARING SITE			
109	1.a	Clearing heavy Jungle	1 Sqm	Based on detailed analysis as per MoRTH Data	
110	b	Clearing light Jungle	1 Sqm		
111	c	Clearing Scrub Jungle	1 Sqm		
112	d	Clearing Juliflora (Prosafis) jungle including up-rooting and removing of Juliflora stumps.	1 Sqm	4	
113	2.a.i	Cutting and removing Palmyrah trees including stacking of girth 30 to 100 cm.	Each	20	
114	ii	- do - 100 to 200 cm.	Each	47	
115	2.b.i	Uprooting and removing Palmyrah stumps including stacking of girth 30 to 100 cm.	Each	49	
116	ii	- do - 100 to 200 cm.	Each	51	
117	2.c.i	Cutting and removing date trees including stacking of girth 30 to 100 cm	Each	25	
118	ii	- do - 100 to 200 cm	Each	37	
119	d.i	Uprooting and removing stumps of date trees including stacking of girth 30 to 100 cm.	Each	25	
120	ii	- do - 100 to 200 cm	Each	32	
121	e i	Cutting and removing other kind of trees including stacking of girth 30 to 100 cm	Each	32	

Sl. No	S.S. Item No	Description	Unit	Schedule Rate	Remarks
122	ii	- do - 100 to 200 cm	Each	49	
123	iii	- do - above 200 cm	Each	79	
124	f.i	Uprooting and removing stumps of other kind of trees including stacking of girth 30 to 100 cm.	Each	25	
125	ii	- do - 100 to 200 cm	Each	34	
126	iii	- do - above 200 cm	Each	43	
127	3.a	Uprooting and clearing prickly pear jungle	1 Sq.m	2	
128	b	- do - under 2.5 meters height including burning and burying as directed.	1 Sq.m	3.2	
129	c	- do - over 2.5 meters height including burning and burying with an initial lead of conveyance	1 Sq.m	4	
130	4.a	Removing of natchu, goobi, thooti etc., from drains, channels including clearance if not more than 1 metre depth of water with an initial lead of 10 metres and lift of 2 metres.	1 Sq.m	2	
131	b.i	Clearing alchi, tilla	1 Sq.m	4	
132	b.ii	Removal of Jammu	1 Sq.m	3.50	
133	c.i	Removal of imponea, cornea	1 Sq.m	3.80	
134	c.ii	Removal of water hyacinth up to 30 cm thick.	1 Sq.m	4	
135	c.iii	- do - more than 30 cm thick	1 Sq.m	5.30	
136	d	Removal of natchu, goobi, thooti etc., for every extra lead or lift over the initial lead or lift.	1 Sq.m	1.45	
		(B) DISMANTLING			
	5	DISMANTLING, CLEARING AWAY MATERIALS USEFUL FOR REUSE.			
137	n.(i)	Dry rough stone revetment for aprons and stacking within 40 metres	1 cum	65	
		(C) QUARRYING AND BLASTING			
138	6	Blasting and removing hard granite measured in solid	1 cum	Based on detailed analysis as per MoRTH Data	
	7	Drilling holes in hard granite or sheet rock			
	a)	Manually (Hand)			
139	i)	20 mm dia meter	1 RM	131	
140	ii)	25 mm dia meter	1 RM	137	
141	iii)	36 mm dia meter	1 RM	158	
	b)	Pneumatic Compressor			
142	i)	20 mm dia meter	1 RM	147	
143	ii)	25 mm dia meter	1 RM	160	

Sl. No	S.S. Item No	Description	Unit	Schedule d Rate	Remarks
144	iii)	36 mm dia meter	1 RM	174	
	8	Grouting the holes with neat cement slurry excluding cost of steel			
145	i)	20 mm dia meter	1 RM	93	
146	ii)	25 mm dia meter	1 RM	116	
147	iii)	36 mm dia meter	1 RM	145	
		(D) EARTH WORK			
148		NOTE:- 1. Standard Specification No.20-A requires breaking clods, ramming and sectioning of spoil bank etc.,		Based on detailed analysis as per MoRTH Data	
149		2. Standard Specification No.20-B does not require that three items of work detailed above, but does require neat banking in accordance with the standard specification.			
150		3. A separate rate for these three items of work will not be necessary where the earth work is executed under the standard specification No. 20-A.			
151 a		Allowances for Excavation and Forming Embankment:			
		(i) Top soil removal - up to 5%		Based on detailed analysis as per MoRTH Data	
		(ii) Consolidation allowance to Proctor's Density - 10%			
		(iii) Shrinkage Allowance - 2 to 2.5%			
		(iv) Wastage- 1%			
		(v) Allowance for removal of boulders - Nil			
151 b		Conveyance by Lorries not applicable to head leads			
		(vi) Clay 25%		Based on detailed analysis as per MoRTH Data	
		loamy, Red Earth, Gravel, Homogeneous soils- 18%			
		(vii) Allowance for compaction and Shrinkage-12 to 12.5%			
		EARTH WORK EXCAVATION AND DEPOSITING ON BANK WITH AN INITIAL LEAD OF 10 METRES AND AN INITIAL LIFT OF 2 METRES IN CASE OF HEAD LEAD ONLY.			
152	8.a	Sand or loose soils wet sand not under water, silt in canals, channels and drains SS 20-A.	1 cum	Based on detailed analysis as per MoRTH Data	
153	b	- do - 20-B	1 cum		
154	9.a	Loamy and Clayey soils like black cotton soils, red earth and ordinary gravel SS 20-A.	1 cum		

Sl. No	S.S. Item No	Description	Unit	Schedule d Rate	Remarks
155	b	- do - 20-B	1 cum		
156	10.b	Slushy soil and silt clearance up to 0.60 metres depth SS 20-B	1 cum		
157	11.b	Clayey Soil in wet and slushy condition SS 20-B	1 cum		
158	12.a	Hard Gravelly Soils SS 20-A	1 cum		
159	b	- do - SS 20-B	1 cum		
160	13.a	Mixture of gravel and soft disintegrated rock like shales ordinary gravel, stoney earth and earth mixed with fair sized boulders SS 20-A	1 cum		
161	b	- do - 20-B	1 cum		
162	14	Soft disintegrated rock (removable by pick axes and crow bars)	1 cum		
163	15	Stone matrix	1 cum		
164	16	Hard disintegrated rock or soft rock or conglomerate rock etc., removable by pick axes and crow bars	1 cum		
165	17	Hard disintegrated rock or soft rock or conglomerate rock and Hard lime kankar requiring partial blasting.	1 cum		
166	18.a.i	Fissured and fractured rock and boulders up to 3 cum in size requiring blasting including stacking	1 cum		
167	a.ii	- do - Stacking is not done	1 cum		
168	18.b.i	Excavation of Nandyal Slabs more than 3 cum in size requiring blasting including stacking	1 cum		
169	b.ii	- do - Stacking is not done	1 cum		
170	19.a.i	Hard rock and boulders more than 3 cum in size requiring blasting including stacking	1 cum		
171	a.ii	- do - Stacking is not done	1 cum		
	a.iii	Hard rock and boulders more than 3 cum in size wherever quarrying is done by controlled blasting.	1 cum		
	a.iv	- do - Stacking is not done	1 cum		
172	19.b	Benching, chiseling, wedging and boring in rock in foundation grade levelling.	1 cum		
		FOR ALL SOILS, SOFT DISINTEGRATED ROCK AND STONE MATRIX (ITEM NOs 8-b to 15 ABOVE)			
173	20.a.i	Extra for every additional 10 metres lead or part there of over the initial lead for the first 3 extra leads	1 cum	Based on detailed analysis as per MoRTH	
174	ii	-do- from 4 th extra lead to 6 th extra lead	1 cum		

Sl. No	S.S. Item No	Description	Unit	Schedule d Rate	Remarks
175	iii	-do- from 7 th extra lead to 9 th extra lead	1 cum	Data	
		FOR HARD DISINTEGRATED ROCK (ITEM 16 TO 17 ABOVE)			
176	20bi	(Extra for every additional 10 metres lead or part there of) over the initial lead for the first 3 extra leads	1 cum	Based on detailed analysis as per MoRTH Data	
177	ii	Extra for every additional 10 mtrs. Lead or part there of from 4 th extra lead to 6 th extra lead	1 cum		
178	iii	-do- from 7 th extra lead to 9 th extra lead	1 cum		
		FOR FISSURED AND FRACTURED HARD ROCK AND BOULDERS ETC., (ITEM 18 & 19 a ABOVE)			
179	20.c.i	(Extra for every additional 10 metres lead or part there of) over the initial lead for the first 3 extra leads	1 cum	Based on detailed analysis as per MoRTH Data	
180	ii	Extra for every additional 10 mtrs. Lead or part there of from 4 th extra lead to 6 th extra lead	1 cum		
181	iii	-do- from 7 th extra lead to 9 th extra lead	1 cum		
		FOR ALL SOILS, SOFT DISINTEGRATED ROCK AND STONE MATRIX (ITEM NOs 8-b to 15 ABOVE)			
182	21.a.i	Extra for every additional 1 metre lift or part there of over the initial lift for the first 3 extra lifts	1 cum	Based on detailed analysis as per MoRTH Data	
183	ii	Extra for every additional 1 mtrs. lift or part there of from 4 th extra lift to 6 th extra lift	1 cum		
184	iii	-do- from 7 th extra lift and above	1 cum		
		FOR HARD DISINTEGRATED ROCK (ITEM 16 & 17 ABOVE)			
185	21.b. i	Extra for every additional 1 metres Lift or part there of over the initial lift for first 3 extra lifts	1 cum	Based on detailed analysis as per MoRTH Data	
186	ii	Extra for every additional 1 mtrs. lift or part there of from 4 th extra lift to 6 th extra lift	1 cum		
187	21.b.iii	-do- from 7 th extra lift and above	1 cum		
		FOR FISSURED AND FRACTURED, HARD ROCK AND BOULDERS ETC.,(ITEM 18 TO 19 a ABOVE).			
188	21.c.i	Extra for every additional lift of 1 metre or part there of over the initial lift for the first 3 extra lifts	1 cum	Based on detailed analysis as per	
189	ii	Extra for every additional lift of	1 cum		

Sl. No	S.S. Item No	Description	Unit	Schedule d Rate	Remarks
		1metre or part there of over from 4th extra lift to 6 th extra lift		MoRTH Data	
190	iii	-do- from 7 th extra lift and above	1 cum		
		Note: The lift charges mentioned in SS item Nos 21a,21 b, and 21c under (D) Earth work are applicable to delifts also.			
191	22.a	Add to relevant SS 20-A rates for new tank bunds, closing breaches, road formation and embankments for extra watering and consolidation by stone roller up to 1 tonne.	1 cum	Based on detailed analysis as per MoRTH Data	
192	b	- do - with stone roller 2 tonnes or cattle treading	1 cum		
193	b(I)	Add to relevant SS 20-A rates for new tank bunds, closing breaches, road formation and embankments for extra watering and consolidation by pneumatic tampers at 90% proctor's density.	1 cum		
194	c	Add to relevant SS 20-A rates for new tank bunds, closing breaches, road formation and embankments for extra watering and consolidation of proctor's density with 8 to 10 tonne power roller including watering and conveyance of water for initial lead of 1/2 Kilometer.	1 cum		
195		Note: The element of Hire charges is Rs 51.76 per 10 cum corresponding to the hire charges of 8 to 10 Tonne power roller fixed at Rs. 2200 /- per day of 8 hours. The rate shall be increased when the element of hire charges increases for item No. 22 c above, if the roller is lent to the contractor at a rate of Rs 275/- per hour (i.e.,) Rs 2200 /- per day of 8 hours may be effected.)			
196	22.d	Extra for every additional 1/2 km lead for water over the initial lead of 1/2 Km for consolidation of banks .	1 cum	Based on detailed analysis as per MoRTH Data	
197	23.a	Benching old embankment slopes 0.45 x 0.45 metres.	1 RM		
198	23.b	Puddle wall work	1 cum		
199	24	Turfing slopes including watering for 3 months with initial lead for conveyance of water and grass for 1 hectometer.	1 Sq.m		
200	25	Refilling with the excavated sand	1 cum		

Sl. No	S.S. Item No	Description	Unit	Schedule d Rate	Remarks
		complying with the standard specifications for filling foundations			
201	26.a	Refilling with the excavated soils (other than sand) complying with the standard specifications for filling foundations.	1 cum		
202	b	Trimming of slopes of embankments and depositing the soils on the top of the bank.	1 cum		
203	c	Ploughing	1 Sq.m		
		(E) CONCRETE AND (G) STONE MASONRY			
203		SSI NOS 31a to 39 and SSI Nos. 60 to 87			
		Note:			
204		1. Add for vibrating concrete	1 cum		
205		2. Add for machine mixing of concrete.	1 cum		
206		3.Add where the power is available for operating the mixer, the rate is,	1 cum		
207	a I	White washing and colour banding for guard and guide stones including cost of materials	each		
208	b I	Screening sand and gravel	1 cum		
209	b 2	Screening chips and metal	1 cum		
210	c 1	Removing and refixing Hectometer or Demarcation stones	each		
		CENTERING CHARGES			
211	L 1	Centering charges for culvert slabs and other structures of 3 mts. span and above	1 cum		
212	L 2	Centering charges for bed blocks and culvert slabs and other structures of less than 3 mts. span.	1 cum		
		CENTERING CHARGES FOR MINOR AND MAJOR BRIDGE WORKS			
213	L3	For mass concrete piers, abutments and steining well curbs, well caps etc.,	1 cum		
214	L 4	For RCC piers, abutments, wing wall, steining, well curbs, well caps etc.,	1 cum		
215		NOTE:- The rates under L3 and L 4 are applicable to Roads and Buildings and Irrigation structures up to 2 metres width			
216	L 5	For RCC deck slabs	1 cum		
217	L 6	For RCC beams	1 cum		
218	L 7	For RCC hand rails	1 cum		
219	L 8	For CC pavements, wearing coats,	1 cum		

Sl. No	S.S. Item No	Description	Unit	Schedule d Rate	Remarks
		approach, slabs, guide stone, J. M. stone etc.,			
	n	Laying and fixing RCC Hume pipes in position including lifting, aligning etc., complete with (fixing) collars for the following diametres of pipes but excluding cost of materials (NP2 Class)			
220	n 1	250 mm diameter	1 Rm	Based on detailed analysis as per MoRTH Data	
221	n 2	300 mm diameter	1 Rm		
222	n 3	450 mm diameter	1 Rm		
223	n 4	600 mm diameter	1 Rm		
224	n 5	750 mm diameter	1 Rm		
225	n 6	800 mm diameter	1 Rm		
226	n 7	1000 mm diameter	1 Rm		
227	n 8	1220 mm diameter	1 Rm		
228		Note:- For NP3 class 50% extra over the rates of NP2. Class may be allowed.			
		(S) ROAD WORK ITEMS			
		PICKING OLD METALLED SURFACE TO DEPTH OF 40 TO 100 mm SPREADING OLD METAL AND NEW METAL SECTIONING INCLUDING EDGEBUNDS AND SUBGRADE ROLLING, SPREADING METAL INCLUDING BLINDAGE OFGRAVEL WATERING WITH AN INITIAL LEAD OF 2 HECTOMETERS AND HAND ROLLER (1.5 TO 2 TONNES) ROLLING ETC., INCLUDING BARRICADING,DIVERSION OF TRAFFIC AND WETTING THE NEW CONSOLIDATION FOR A FORTNIGHT COMPLETE.		Based on detailed analysis as per MoRTH Data	
		(For a compact thickness)			
	1 (I)	HARD METAL			
229	a	40 mm thickness	10 sqm	Based on detailed analysis as per MoRTH Data	
230	b	50 mm thickness	10 sqm		
231	c	75 mm thickness	10 sqm		
232	d	100 mm thickness	10 sqm		
	1 (ii)	For compact thickness of soft metal			
233	a	50 mm thickness	10 sqm		
234	b	75 mm thickness	10 sqm		
235	c	100 mm thickness	10 sqm		
236	2	Picking 5 to 100 mm old metalled surface and sectioning	10 sqm		
237	3	Picking gravelled surface 25 mm deep and levelling and sectioning	10 sqm		
238	4	Picking the existing B.T. surface and	10 sqm		

Sl. No	S.S. Item No	Description	Unit	Schedule d Rate	Remarks
		removal of chips			
239	5	Picking old metalled surface to a depth of 40 to 100 mm and spreading metal including watering with an initial lead of 2 Hectometers and rolling with power rollers watering and spreading gravel for blindage and power roller rolling including hire charges of power roller rolling including hire charges of power roller (8 to 10 T) barricading and diversion of traffic and wetting the new consolidation for a fortnight (for compacted thickness of)		Based on detailed analysis as per MoRTH Data	
		HARD METAL			
240	5 (a)	40 mm thickness	10 sqm	Based on detailed analysis as per MoRTH Data	
241	(b)	50 mm thickness	10 sqm		
242	(c)	75 mm thickness	10 sqm		
243	(d)	100 mm thickness	10 sqm		
244	(e)	150 mm thick excluding hire charges	10 sqm		
		Spreading gravel watering with an initial lead of 2 hectometers and power roller (8 to 10 T) rolling excluding hire charges of power roller and barricading etc., (for a compact thickness of)			
245	6a	50 mm thickness	10 sqm	Based on detailed analysis as per MoRTH Data	
246	b	75 mm thickness	10 sqm		
247	c	100 mm thickness	10 sqm		
248	d	150 mm thickness	10 sqm		
249	7a	Blinding the road surface 6 mm thick with gravel or sand available at site after remaining loose stones including watering.	10 sqm		
250	b	-do- without watering	10 sqm		
251	8a	Blinding the road surface 6 mm thick with gravel or sand dug from road site including watering.	10 sqm		
252	b	-do- without watering	10 sqm		
253		Spreading gravel sand including watering and roller rolling (for compacted thickness of)			
254	9a	-do- 6mm to 20 mm thick	1 cum	Based on detailed analysis as per MoRTH Data	
255	b	-do- from 20 to 25 mm thick	1 cum		
256	c	-do- from 25 to 40 mm thick	1 cum		
257	d	-do- from 40 to 50 mm thick	1 cum		
258	10	Picking 50 to 100 mm Old metalled surface, spreading metal and blindage	10 sqm		

Sl. No	S.S. Item No	Description	Unit	Schedule d Rate	Remarks
		watering tamping for patch repairs (labour only)			
259	11	Picking old metalled surface 50 to 100 mm deep spreading gravel watering and tamping (labour only)	10 sqm		
260	12	Levelling ruts and tamping gravelled roads	10 sqm		
261	13	Levelling ruts and tamping metalled roads	10 sqm		
262	14	Spreading gravel or sand including watering and rolling with hand roller irrespective of thickness in layer	10 cum		
263	15(I)	Carrying for water for WBM consolidation metal and blindage of 40 to 150 mm thickness for every one hectometer beyond initial lead of 2 hectometers beyond initial lead of 2 hectometers	10 sqm		
	(ii)	Rate towards the cost of water to be consumed for Cement Concrete Roads(including curing) under Greater Hyderabad Municipal Corporation limits only, subject to issue of certificate by the concerned Executive Engineer in charge of the work that water required for the work is to be purchased from other source.	1 sqm		
264		Gelatin(For MORTH data,for works of state & national high ways only)	Per Kg	As per local market rate	
265		Electric Detonators(For MORTH data,for works of state & national high ways only)	each		
266		Hot applied thermoplastic compound(For MORTH data, for works of state & national high ways only)	Per Litre		
267		Reflectionising glass beads of 2 mm thick(For MORTH data, for works of state & national high ways only)	Per Kg		
268		Road marking paint conforming to IS 164(For MORTH data, for works of state & national high ways only)	Per Kg		
		BAILING OUT WATER CHARGES FOR CD & CM WORKS (WHEREVER REQUIRED)			
267	I 14	For earth work excavation for foundations below low water level	1 cum		
268	I 15	For cement concrete for foundation below low water level	1cum		

Sl. No	S.S. Item No	Description	Unit	Schedule Rate	Remarks
269	n	Labour charges for laying filters with coarse aggregate.	1 cum		
270	o	Labour charges for laying filter with sand.	1 cum		
271		Jute Rope	Mtr	9	
272		De bonding Strips	Mtr	11	
273		Selent	Ltr	73	
274		Ply sheet 125 micron	1 Sqm	19	
275		Rural water	1 kl	81	
276		Urban water	1 kl	109	

HIRE CHARGES FOR MACHINERY

Sl. No.	Description		Unit	Scheduled Rate	Remarks
	Machine	Activity		(Rupees)	
1	2	3	4	5	6
1	Dozer(D 80)	Spreading	Per Hour	3168	As per I&CAD S.No 8
		Cutting			
		Cleaning			
2	Dozer(D 50)	Spreading Cutting Cleaning	Per Hour	1934	
3	Mortor Grader	Clearing	Per Hour	3962	
		Spreading			
		GSB			
		WMM			
4	Hydraulic Excavator	Soil Ordinary	Per Hour	3571	As per I&CAD S.No.52
		Soil Marshy			
		Soil unsuitable			
5	Front end loader	Soil loading	Per Hour	2028	
		Aggregate loading	Per Hour		
6	Tipper- 5.5 Cum	Transportation of soil, GSB,WMM, Hot mix etc	Per Hour	1278	As per I&CAD S.No.54
			Per tonne Km	8	
7	Vibratory roller 8 tonne	Earth/Soil, GSB,	Per Hour	3535	As per I&CAD S.No.62
		WMM			
8	Smooth wheeled roller 8 tonne	Soil compaction ,BM compaction	Per Hour	1758	As per I&CAD S.No.50
9	Water tanker 8 Kilolitre	Water transport	Per Hour	1201	As per I&CAD S.No.64
10	Water tanker 6 Kilolitre	Water transport	Per Hour	769	
11	Tractor	Pulling	Per Hour	512	
12	Tractor with rotavator	Scarifying	Per Hour	520	
13	Tractor with ripper attachment	Scarifying	Per Hour	625	
14	Air Compressor	General purpose	Per Hour	714	As per I&CAD S.No.2
15	Wet mix plant 60 TPH	Wet mix	Per Hour	2028	
16	Mechanical broom Hydraulic	Surface cleaning	Per Hour	440	
17	Bitumen Pressure Distributor	Applying bitumen tack coat	Per Hour	1846	
18	Emulsion Pressure Distributor	Applying emulsion tack coat	Per Hour	1059	
19	Hot mix Plant -100-120 TPH capacity	DBM/BM/SDC	Per Hour	38683	
		/Premix			
20	Hot mix Plant - 40-60 TPH capacity	DBM/BM/SDC	Per Hour	30141	
		/Premix			
21	Paver Finisher Hydrostatic with	DBM/BM/SDC	Per Hour	3770	
		/Premix			

	sensor control 100 TPH				
22	Paver finisher Mechanical 100	Paving of WMM, paving of DLC	Per Hour	2771	
23	Hydraulic Chip Spreader	Surface dressing	Per Hour	3163	
	Tandem Road roller	Rolling of Asphaltic surface	Per Hour	2028	
24	Pneumatic Road roller	Rolling of Asphaltic surface	Per Hour	1581	
25	Pot-Hole repair machine	Repair of pot-holes	Per Hour	1041	
	Bitumen boiler oil fired	Bitumen Spraying	Per Hour	257	
26	GSB Plant 50 Cum	Producing GSB	Per Hour	1408	
27	Mastic Cooker	Mastic wearing coat	Per Hour	80	
28	Batching and Mixing Plant (a) 30 Cum capacity	Concrete mixing	Per Hour	1518	
	(b) 15 - 20 Cum capacity	Concrete mixing	Per Hour	1370	As per I&CAD S.No.10
29	Transit mixer	Transportation of concrete mix	Per Hour	2731	As per I&CAD S.No.1
30	Concrete pump of 45 and 30 cum	Pumping of Concrete	Per Hour	989	
31	Cranes				
	(a) 80 tonnes	Lifting purpose	Per Hour	1443	
	(b) 35 tonnes			975	
	(c) 3 tonnes			433	
	(d)Crane with grab bucket 0.75 cum	Well foundation	Per Hour	2661	
	(e)Crane with grab bucket 1 cum	Well foundation	Per Hour	4352	
32	Concrete bucket	For pouring concrete	Per Hour	17	As per I&CAD S.No.14
33	Kerb casting machine	Kerb making	Per Hour	383	
34	Concrete mixer	Concrete mixing	Per Hour	686	As per I&CAD S.No.18
	(a)0.28 cum				
	(b) 1.0 cum	Concrete mixing	Per Hour	800	
35	Piling rig with bantonite pump	0.75 m dia to 1.20 m dia boring attachment	Per Hour	6745	
36	Concrete paver finisher with 40 HP motor	Paving of concrete surface	Per Hour	3573	
37	Integrated stone crusher	Crushing of spalls 100 TPH	Per Hour	10733	
		Crushing of spalls 200 TPH	Per Hour	22630	
38	Pre stressing jack with pump and	Stressing of steel wires/ stands	Per Hour	174	

	access				
39	Generator				
	250 KVA	Generation of electric energy	per hour	2279	
	125 KVA		per hour	1626	
	100 KVA		per hour	1387	
	30 KVA		per hour	1336	As per I&CAD S.No.23
40	Pneumatic sinking of Plants	Pneumatic sinking of wells	Per K.m.	69	
41	Truck 5.5 cum per 10 tonnes	Material transport	Per Km.	1232	As per I&CAD S.No.58
42	Road marking machine	Road marking	Per Hour	136	
43	Mobile slurry seal equipment	Mixing and laying slurry seal	Per Hour	1387	
44	Plate compacter	For compacting in medians	Per Hour	59	
45	Drilling equipment	For drilling	Per Hour	1143	As per I&CAD S.No.22

Note:

The above hire charges of machinery & plant includes crew, oils, conveyance of machinery to site and all other incidental charges.

Road Safety Interventions Item Rates

Sl. No	Description	Unit	Scheduled Rate
1	3MM Aluminium composite material (ACM) Sheet (Having minimum 0.30mm thick Aluminium on both sides) confirming to IRC 67-2012&MoRTH Specification No.805 etc	Sqm	1809
	a) For Caution / Warning sign boards of size 600mm Triangle, 600mm Circle		
	b) For facility / information sign boards of size 600mm x 800mm.		
	c) For object marker of size 300mm Triangle.		
	d) For Hazard Marker of size 300mm x 900mm		
2	4MM Aluminium composite material (ACM) Sheet having 0.40 mm thick Aluminium on both sides confirming to 1RC 67-2012 &" MoRTH Specification No. 805 etc.	Sqm	2157
	a) For Caution / Warning sign boards of size 900mm Triangle.		
	b) For Junction boards of size 1050mm x 1500mm Rectangular		
	c) For Junction boards of size 1500mm x 1200mm Rectangular		
3	Prismatic Retro Reflective sheeting type XI confirming to IRC 67-2012 &MORTH Specification No. 805 etc.	Sqm	7512
	a) For caution / warning sign boards 600mm & 900 mm triangle , 600mm dia. and 900mm dia. circular		
	b) Informatory sign boards 600mmx800mm		
	c) object marker 300 mm Triangle		
	d) Hazard marker 300mmx900mm		
	e) Junction boards 1050mmx1500mm & 1500mmx1200mm rectangular		
4	Thermoplastic paint confirming to IRC-35 and MORTH specification.	per Kg.	118
	Glass beads confirming to IRC-35 and MORTH specification	per Kg.	103
5	AFP Sheet as per MORTH specification confirming to IRC35	SqFt	779
6	Median Marker Double sided confirming to MoRTH specification	Each	315
7	DELINEATORS single sided Conforming to MoRTH Specification	Each	1958
	DELENEATORS Double Sided	Each	2326
8	RPM (STUDS) Conforming to MoRTH Specification.	Each	218
9	RPM Drilling cost including materials, machinery & labour.	Each	59.5
10	Median Marker drilling cost including materials, machinery & labour.	Each	101
11	RPM fixing Cost, epoxy materials etc.	Each	78
12	Median Marker fixing cost epoxy with 4nails and materials etc.	Each	167
13	Flexible Median Marker : Conforming to IRC 67 & 79, Including cost of all materials, epoxy, Machinery, labour, fixing at site for finished item of work.	Each	240
14	Standard Metal Delineators: Conforming to IRC 67 & 79, Including cost of all materials, epoxy, Machinery, labour, fixing at site for finished item of work.	Each	1200

PART-III

BUILDING WORKS

PART-III INDEX

Building Works

S.No.	Description	Page No	
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1	Civil Items	43	211
2	Plumbing Items	212	268
3	Electrical Items	269	434

CIVIL ITEMS

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
A	SECTION	BRICKS & BUILDING BLOCKS		
		(Excluding taxes, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	ORDINARY CLAY BRICKS		
1	TBSC-A.I-01	Common burnt clay bricks of class as per Table-1 of IS:1077-1992 Non-Modular or traditional size 23 x 11 x 7 cm	Each	9
2	TBSC-A.I-02	Common burnt clay bricks of class as per Table-1 of IS:1077-1992 Modular or traditional size 19 x 9 x 9 cm	Each	10
II	SUB-SECTION	FLY-ASH CEMENT/LIME SOLID BLOCKS		
3	TBSC-A.II-01	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 290 x 225 x 140 mm	Each	30
4	TBSC-A.II-02	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 290 x 200 x 140 mm	Each	27
5	TBSC-A.II-03	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 290 x 150 x 140 mm	Each	26
6	TBSC-A.II-04	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 290 x 112/100 x 140 mm	Each	18
7	TBSC-A.II-05	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 225 x 100 x 60 mm	Each	11
8	TBSC-A.II-06	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 145 x 225 x 140 mm	Each	20
9	TBSC-A.II-07	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 145 x 200 x 140 mm	Each	15
10	TBSC-A.II-08	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 290 x 225 x 140 mm	Each	32
11	TBSC-A.II-09	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 290 x 200 x 140 mm	Each	25
12	TBSC-A.II-10	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 290 x 150 x 140 mm	Each	26
13	TBSC-A.II-11	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 290 x 112/100 x 140 mm	Each	14
14	TBSC-A.II-12	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 225 x 100 x 60 mm	Each	9
15	TBSC-A.II-13	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 145 x 225 x 140 mm	Each	16
16	TBSC-A.II-14	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 145 x 200 x 140 mm	Each	15

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
17	TBSC-A.II-15	Supply of Solid concrete blocks conforming to IS : 2572 and IS: 2185 (Part 1) - 2005 with compressive strength 5 N/mm ² (Landing cost - including cost of conveyance, loading and unloading). Size: 400 x 200 x 200mm	Each	65
18	TBSC-A.II-16	Supply of Solid concrete blocks conforming to IS : 2572 and IS: 2185 (Part 1) - 2005 with compressive strength 7.5 N/mm ² (Landing cost - including cost of conveyance, loading and unloading). Size: 400 x 200 x 200mm	Each	68
19	TBSC-A.II-17	Supply of Solid concrete blocks conforming to IS : 2572 and IS: 2185 (Part 1) - 2005 with compressive strength 5 N/mm ² (Landing cost - including cost of conveyance, loading and unloading). Size: 400 x 200 x 100mm	Each	32
20	TBSC-A.II-18	Supply of Solid concrete blocks conforming to IS : 2572 and IS: 2185 (Part 1) - 2005 with compressive strength 7.5 N/mm ² (Landing cost - including cost of conveyance, loading and unloading). Size: 400 x 200 x 100mm	Each	34
III	SUB-SECTION	AUTOCLAVED CONCRETE BLOCKS		
21	TBSC-A.III-01	Supply of Aerated (Cellular) Autoclaved Concrete Blocks conforming to IS:2185 (Part-3) - 1984 and IS:6441-1972 of Compressive strength 3 N/mm ² (landing cost - including cost of conveyance, loading & unloading) 600 x 200 x 100 mm	Each	61
22	TBSC-A.III-02	Supply of Aerated (Cellular) Autoclaved Concrete Blocks conforming to IS:2185 (Part-3) - 1984 and IS:6441-1972 of Compressive strength 3 N/mm ² (landing cost - including cost of conveyance, loading & unloading) 600 x 200 x 150 mm	Each	90
23	TBSC-A.III-03	Supply of Aerated (Cellular) Autoclaved Concrete Blocks conforming to IS:2185 (Part-3) - 1984 and IS:6441-1972 of Compressive strength 3 N/mm ² (landing cost - including cost of conveyance, loading & unloading) 600 x 200 x 200 mm	Each	120
23	TBSC-A.III-04	Supply of Aerated (Cellular) Autoclaved Concrete Blocks conforming to IS:2185 (Part-3) - 1984 and IS:6441-1972 of Compressive strength 3 N/mm ² (landing cost - including cost of conveyance, loading & unloading) 600 x 200 x 230 mm	Each	137
B	SECTION	NATURAL FLOORING STONES		
		(Excluding taxes, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	LOCALLY AVAILABLE FLOORING STONES		
24	TBSC-B.I-01	Shahabad /Tandur Rough Stone slabs of all sizes up to 25 mm in thickness	1 Sqm	111
25	TBSC-B.I-02	Shahabad / Tandur Rough Stone slabs of all sizes between 25 mm - 40 mm thickness	1 Sqm	145
26	TBSC-B.I-03	Polished Shahabad/ Tandur stone slabs of all sizes between 15 - 18 mm thickness	1 Sqm	270
27	TBSC-B.I-04	Kadapa slabs of 40 mm thick of all sizes	1 Sqm	111
28	TBSC-B.I-05	Kadapa slabs of 50 mm thick of all sizes	1 Sqm	129
29	TBSC-B.I-06	Polished black Kadapa slabs of all sizes between 15 - 18 mm thickness	1 Sqm	160

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
30	TBSC-B.I-07	Polished black Kadapa slabs of all sizes between 25 - 30 mm thickness	1 Sqm	192
31	TBSC-B.I-08	Polished White Bethamcherla (marble type) stone of all sizes and between 22-25 mm thickness	1 Sqm	445
32	TBSC-B.I-09	Polished Coloured Bethamcherla (marble type) stone of all sizes and between 22-25 mm thickness	1 Sqm	318
II	SUB-SECTION	NATURAL FLOORING STONES - MARBLE		
33	TBSC-B.II-01	Polished Marble slabs of Dongari/ Adanga/ Marodh/ Rajgangpur etc., variety of thickness between 16 mm to 20 mm of sizes from 600 mm to 900 mm	1 Sqm	767
34	TBSC-B.II-02	Polished Marble slabs of Dongari/ Adanga/ Marodh/ Rajgangpur etc., variety of thickness between 16 mm to 20 mm of sizes up to 600 mm	1 Sqm	620
35	TBSC-B.II-03	Polished Marble slabs of any variety and gang saw cut (Such as Dongari/ Adanga/ Marodh/ Rajgangpur etc) 16 mm to 20 mm (average) thick (0.610 M width of any length)	1 Sqm	1052
36	TBSC-B.II-04	Polished Marble Tiles of 8 - 10 mm thickness of all sizes and varieties	1 Sqm	502
III	SUB-SECTION	NATURAL FLOORING STONES - GRANITE		
37	TBSC-B.III-01	High Polished Granite 16 to 18 mm thick up to 8'-00 (2.43 M) other than black/ premium colours	1 Sqm	3486
38	TBSC-B.III-02	High Polished Granite 16 to 18 mm thick up to 8'-00 (2.43 M) other than black and regular colours	1 Sqm	3030
39	TBSC-B.III-03	High Polished Granite 16 to 18 mm thick up to 8'-00 (2.43 M) black	1 Sqm	2576
40	TBSC-B.III-04	Granite stone tiles 8 mm thick (mirror polished of all shades)	1 Sqm	1182
C	SECTION	WALL & FLOOR TILES		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	NON-PORCELAIN CERAMIC FLOOR TILES		
41	TBSC-C.I-01	Supply of Non-skid red or white full body Ceramic floor tiles of size 300 x 300 mm and thickness between 7-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	315
42	TBSC-C.I-02	Supply of Non-skid red or white full body Ceramic floor tiles of size 400 x 400 mm and thickness between 7-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	326
43	TBSC-C.I-03	Supply of Non-skid red or white full body Ceramic floor tiles of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	510
44	TBSC-C.I-04	Supply of Non-skid red or white full body Ceramic floor tiles of scratch free-stain free and scratch free-Nano finish of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1	1 Sqm	510

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		to 15) of any colour and finish in all shades and designs		
45	TBSC-C.I-05	Supply of red or white body pressed/ rectified Ceramic floor tiles High Glossy of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	475
46	TBSC-C.I-06	Supply of red or white body Ceramic floor tiles High Glossy of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	570
II	SUB-SECTION	PORCELAIN VITRIFIED FLOOR TILES		
47	TBSC-C.II-01	Supply of ordinary soluble salt porcelain vitrified tiles screen printed and polished of size 400 x 400 mm and thickness between 8-9 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	Deleted
48	TBSC-C.II-02	Supply of soluble salt/ stain free porcelain vitrified tiles screen printed and polished of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	443
49	TBSC-C.II-03	Supply of Nano polished /stain free soluble salt/ stain free porcelain vitrified tiles screen printed of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	443
50	TBSC-C.II-04	Supply of Nano polished soluble salt/ stain free porcelain vitrified tiles screen printed of size 800 x 800 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	525
51	TBSC-C.II-05	Supply of Double charged / multi charged stain free full body porcelain vitrified tiles with double layer pigment of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	578
52	TBSC-C.II-06	Supply of Double charged / multi charged stain free full body porcelain vitrified tiles with double layer pigment of size 800 x 800 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	630
53	TBSC-C.II-07	Supply of Double charged / multi charged stain free full body porcelain vitrified tiles with double layer pigment of size 1000 x 1000 mm and thickness between 12-15 mm 1st quality	1 Sqm	735

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs		
54	TBSC-C.II-08	Supply of digital / polished glazed full body porcelain vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 800 x 800 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	683
55	TBSC-C.II-09	Supply of digital / polished glazed full body porcelain vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 900 x 900 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	840
56	TBSC-C.II-10	Supply of digital / polished glazed full body porcelain vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1000 x 1000 mm and thickness between 12-15 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1050
57	TBSC-C.II-11	Supply of digital / polished glazed full body porcelain vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1200 x 600 mm and thickness between 12-15 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	788
58	TBSC-C.II-12	Supply of full body heavy duty industrial variety porcelain vitrified tile of size 300 x 300 / 200 x 100 mm and thickness between 10-12 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	500
59	TBSC-C.II-13	Supply of full body heavy duty industrial variety / tact porcelain vitrified tile of size 300 x 300 / 200 x 100 mm and thickness between 12-15 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	700
60	TBSC-C.II-14	Supply of full body heavy duty industrial variety porcelain vitrified tile of size 300 x 300 / 200 x 100 mm and thickness between 18-20 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1300
61	TBSC-C.II-15	Supply of full body heavy duty industrial variety porcelain vitrified tile of size 400 x 400 mm and thickness between 10 -12 mm 1st quality	1 Sqm	600

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs		
62	TBSC-C.II-16	Supply of full body heavy duty industrial variety porcelain vitrified tile of size 600 x 600 mm and thickness between 10 - 12 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	800
63	TBSC-C.II-17	Supply of Nano polished /stain free Twin white vitrified tiles of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	550
64	TBSC-C.II-18	Supply of polished /stain free Full Body vitrified tiles of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of Specific colour and finish in all shades and designs	1 Sqm	800
65	TBSC-C.II-19	Supply of Double charged / multi charged stain free vitrified tiles with double layer pigment of size 600 x 1200 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	750
66	TBSC-C.II-20	Supply of double charged Matt Full Body vitrified tiles of size 600 x 1200 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of Specific colour and finish in all shades and designs	1 Sqm	1025
67	TBSC-C.II-21	Supply of digital / polished glazed vitrified tiles Glossy/Matt with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 600 X 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	600
68	TBSC-C.II-22	Supply of digital / polished glazed vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1200 x 1200 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1450
69	TBSC-C.II-23	Supply of digital / polished glazed vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 800 x 1600 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1450
70	TBSC-C.II-24	Supply of digital / polished glazed vitrified tiles	1 Sqm	1700

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1200 x 1800 mm and thickness between 9-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs		
71	TBSC-C.II-25	Supply of Nano polished /stain free Twin white vitrified tiles of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	660
72	TBSC-C.II-26	Supply of polished /stain free Full Body vitrified tiles of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of Specific colour and finish in all shades and designs	1 Sqm	960
73	TBSC-C.II-27	Supply of Double charged / multi charged stain free vitrified tiles with double layer pigment of size 600 x 1200 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 sqm	900
74	TBSC-C.II-28	Supply of double charged Matt Full Body vitrified tiles of size 600 x 1200 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of Specific colour and finish in all shades and designs	1 Sqm	1230
75	TBSC-C.II-29	Supply of digital / polished glazed vitrified tiles Glossy/Matt with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 600 X 600 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	720
76	TBSC-C.II-30	Supply of digital / polished glazed vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1200 x 1200 mm and thickness between 9-11 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1740
77	TBSC-C.II-31	Supply of digital / polished glazed vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 800 x 1600 mm and thickness between 9-11 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1740
78	TBSC-C.II-32	Supply of digital / polished glazed vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc.,	1 Sqm	2040

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		scratch less, stain free and of size 1200 x 1800 mm and thickness between 9-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs		
III	SUB-SECTION	CERAMIC WALL TILES		
79	TBSC-C.III-01	Supply of glazed red or white full body ceramic wall tiles of size 200 x 300 mm / 245 mm x 325 mm / 250 mm x 375 mm and thickness 6 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	315
80	TBSC-C.III-02	Supply of glazed red or white full body ceramic wall tiles of size 300 x 450 mm / 320 mm x 400 mm and thickness 6 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	420
81	TBSC-C.III-03	Supply of glazed red or white full body ceramic wall tiles of size 300 x 600 mm and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	578
82	TBSC-C.III-04	Supply of red or white body ceramic wall tiles of size 250 x 375 mm and thickness 6 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	450
IV	SUB-SECTION	PORCELAIN WALL TILES		
83	TBSC-C.IV-01	Supply of glazed full body porcelain wall tiles of size 300 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	750
84	TBSC-C.IV-02	Supply of digital / polished glazed full body porcelain wall tiles of size 300 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	750
85	TBSC-C.IV-03	Supply of digital / polished glazed full body porcelain highlighter wall tiles of size 300 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	750
86	TBSC-C.IV-04	Supply of screen printed glazed full body porcelain wall tiles of size 300 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch	1 Sqm	750

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		less, stain free and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs		
87	TBSC-C.IV-05	Supply of glazed full body porcelain wall tiles of size 400 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	Deleted
88	TBSC-C.IV-06	Supply of glazed full body porcelain wall tiles of size 600 x 800 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 7-9 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	Deleted
89	TBSC-C.IV-07	Supply of glazed full body porcelain premium plain design highlighter combination floor and wall tiles set with floor tiles of thickness 14-16 mm and wall tiles of thickness 8-10 mm but excluding highlighters 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	Deleted
90	TBSC-C.IV-08	Supply of glazed full body porcelain premium plain design highlighter combination floor and wall tiles set with floor tiles of thickness 14-16 mm and wall tiles of thickness 8-10 mm but including highlighters 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	Deleted
91	TBSC-C.IV-09	Providing and fixing wall dado with epoxy emulsion grout/ synthetic/ resin-based adhesive in specified thick and pointing with specified colour epoxy grout excluding cost of tiles	1 Sqm	373
92	TBSC-C.IV-10	Providing and fixing wall dado with cement-based adhesive in specified thick and pointing with specified colour epoxy grout excluding cost of tiles	1 Sqm	192
93	TBSC-C.IV-11	Providing and fixing flooring with full depth jointing and pointing to the Vitrified/ Ceramic Tile flooring in specified thick for tiles of any sizes with epoxy emulsion grout/ synthetic / resin adhesive in width of 3-5 mm with Nylon spacers excluding cost of tiles.	1 Sqm	373
94	TBSC-C.IV-12	Providing and fixing flooring with full depth jointing and pointing to the Vitrified/ Ceramic Tile flooring in specified thick for tiles of any sizes with cement-based adhesive in width of 3-5 mm with Nylon spacers excluding cost of tiles .	1 Sqm	189
95	TBSC-C.IV-13	Providing and fixing flooring with full depth jointing and pointing to the Marble/ Granite flooring for any sizes with epoxy emulsion grout/ synthetic / resin-based adhesive in width of 3-5 mm excluding cost of tiles.	1 Sqm	742

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
96	TBSC-C.IV-14	Providing and fixing flooring with full depth jointing and pointing to the Marble/ Granite flooring for any sizes with cement-based adhesive in width of 3-5 mm excluding cost of tiles.	1 Sqm	376
V	SUB-SECTION	GLASS MOSAIC TILES		
97	TBSC-C.V-01	Supply of glazed full body glass mosaic tiles of 20 x 20 x 4 mm thick in specified pattern 1st Quality of any colour and design	1 Sqm	1301
98	TBSC-C.V-02	Providing Glass Mosaic tiles using specified pattern fixing in specified thick epoxy emulsion grout of epoxy resins and filler powder of approved colour grout including all taxes excluding cost of tiles	1 Sqm	293
99	TBSC-C.V-03	Providing Glass Mosaic tiles using specified pattern fixing in specified thick cementitious powder mix cement grout and approved colour grout including all taxes excluding cost of tiles	1 Sqm	113
VI	SUB-SECTION	WALL CLADDING TILES		
100	TBSC-C.VI-01	Supply of glazed full body porcelain tiles for external cladding purposes of any size and thickness between 6-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	578
101	TBSC-C.VI-02	Supply of glazed red or white full body ceramic tiles for external cladding purposes of any size and thickness between 5-7 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	504
102	TBSC-C.VI-03	Supply of glazed red or white full body ceramic tiles for external cladding purposes of any size and thickness between 10-12 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	546
103	TBSC-C.VI-04	Supply of glazed red or white full body ceramic tiles for external cladding purposes of any size and thickness between 18-20 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	Deleted
VII	SUB-SECTION	TERRAZZO FLOOR TILES (PLAIN & CHEQURED)		
104	TBSC-C.VII-01	Supplying precast terrazzo tiles conforming to IS: 13801 using marble aggregates of size 10 mm , sand, marble powder, white cement pigments etc., with terrazzo topping not less than 6 mm of tiles overall size not less than 20 mm thick white shades.	1 Sqm	275
105	TBSC-C.VII-02	Supplying precast terrazzo plain tiles conforming to IS: 13801 using marble aggregates of size 10 mm , sand, marble powder, white cement pigments etc., with terrazzo topping not less than 6 mm of tiles overall size not less than 20 mm thick any coloured shades.	1 Sqm	292

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
106	TBSC-C.VII-03	Supplying precast terrazzo chequered tiles conforming to IS: 13801 using marble aggregates of size 10 mm , sand, marble powder, white cement pigments etc., with terrazzo topping not less than 6 mm of tiles overall size not less than 20 mm thick of any coloured shades.	1 Sqm	300
VIII	SUB-SECTION	CEMENT CONCRETE FLOOR TILES (PLAIN & CHEQUERED)		
107	TBSC-C.VIII-01	Supplying plain Cement Concrete general purpose tiles conforming to IS: 13801 using aggregates, cement, pigments of size 300 x 300 mm and thickness 20 mm of any shades.	1 Sqm	258
108	TBSC-C.VIII-02	Supplying Chequered Cement Concrete heavy duty tiles conforming to IS: 13801 using aggregates, cement, pigments of size 300 x 300 mm and thickness 20 mm of any shades.	1 Sqm	271
109	TBSC-C.VIII-03	Supplying plain Cement Concrete general purpose tiles conforming to IS: 13801 using aggregates, cement, pigments of size 300 x 300 mm and thickness 25 mm of any shades.	1 Sqm	275
110	TBSC-C.VIII-04	Supplying Chequered Cement Concrete heavy duty tiles conforming to IS: 13801 using aggregates, cement, pigments of size 300 x 300 mm and thickness 25 mm of any shades.	1 Sqm	288
111	TBSC-C.VIII-05	Supplying plain Cement Concrete general purpose tiles conforming to IS: 13801 using aggregates, cement, pigments of size 400 x 400 mm and thickness 25 mm of any shades.	1 Sqm	300
112	TBSC-C.VIII-06	Supplying Chequered Cement Concrete heavy duty tiles conforming to IS: 13801 using aggregates, cement, pigments of size 400 x 400 mm and thickness 25 mm of any shades.	1 Sqm	315
113	TBSC-C.VIII-07	Supply of high strength Cement Concrete plain Step tiles with edge half rounded and grooved conforming to IS: 13801 using aggregates, cement, pigments of regular colour, design and of 25 mm thickness	1 Sqm	449
114	TBSC-C.VIII-08	Supply of high strength Cement Concrete terrazzo/pre-polished/ chequered Step tiles with edge rounded and grooved conforming to IS: 13801 using aggregates, cement, pigments of any premium colour, design and of 25 mm thickness	1 Sqm	472
115	TBSC-C.VIII-09	Supply of COOL ROOF SRI TILES 300x300 mm and thickness 8mm 1st quality conforming to IS:4457:2007, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	525
116	TBSC-C.VIII-10	Supply of COOL ROOF SRI TILES 300x300 mm and thickness 10mm 1st quality conforming to IS:4457:2007, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	600
117	TBSC-C.VIII-11	Supply of COOL ROOF SRI TILES 400x400 mm and thickness 10mm 1st quality conforming to IS:4457:2007, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	700
IX	SUB-SECTION	PRE-CAST CONCRETE BLOCKS FOR PAVING		
118	TBSC-C.IX-01	Supply of precast concrete blocks for paving of M-	1 Sqm	320

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		30 grade and thickness not less than 50 mm for Non-traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification		
119	TBSC-C.IX-02	Supply of precast concrete blocks for paving of M-35 grade and thickness not less than 60 mm for Light traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	345
120	TBSC-C.IX-03	Supply of precast concrete blocks for paving of M-40 grade and thickness not less than 80 mm for Medium traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	494
121	TBSC-C.IX-04	Supply of precast concrete blocks for paving of M-50 grade and thickness not less than 100 mm for Heavy traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	544
122	TBSC-C.IX-05	Supply of precast concrete blocks for paving of M-55 grade and thickness not less than 120 mm for very heavy traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	619
123	TBSC-C.IX-06	Labour charges for laying & fixing of precast concrete blocks for paving of all grades, any thickness, all sizes & shapes including all labour charges for loading & unloading, laying to desired lines and levels complete excluding cost of cement, sand, water, electricity etc	1 Sqm	244
X	SUB-SECTION	VINYL FLOORING		
124	TBSC-C.X-01	Vinyl Flooring Sheets/ tiles having a nominal total thickness of 2 mm with a wearing surface impregnated polyurethane homogeneous mixture of PVC, Plasticizers, Urethane, colour pigments with wearing resistance and Fire Resistance as per standards	1 Sqm	887
125	TBSC-C.X-02	Vinyl Composition Floor Tiles of size 305 mm x 305 mm having an overall thickness of 2.0mm with a wearing surface impregnated polyurethane homogeneous mixture of PVC, Plasticizers, Urethane, colour pigments with wearing resistance and Fire Resistance as per standards	1 Sqm	608
126	TBSC-C.X-03	Vinyl Flooring Sheets or tiles having a nominal total thickness of 1.5 mm with a wearing surface impregnated polyurethane homogeneous mixture of PVC, Plasticizers, Urethane, colour pigments with wearing resistance and Fire Resistance as per standards	1 Sqm	442
D	SECTION	TIMBER & ROOFING MATERIALS		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
		Note: Before proposing the Teak Wood Items, the estimating authorities shall obtain prior approval from the competent authority		
I	SUB-SECTION	MEDIUM TEAK WOOD		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
127	TBSC-D.I-01	Medium Teak Wood scantlings: up to 2.0 M	1 cum	85314
128	TBSC-D.I-02	Medium Teak Wood scantlings: 2.0 to 3.0 M	1 cum	94794
129	TBSC-D.I-03	Medium Teak Wood scantlings: above 3.0 M	1 cum	104274
130	TBSC-D.I-04	Medium Teak Wood Planks: any thickness	1 cum	170627
II	SUB-SECTION	BEST TEAK WOOD		
131	TBSC-D.II-01	Best Teak Wood scantlings: up to 2.0 M	1 cum	146929
132	TBSC-D.II-02	Best Teak Wood scantlings: 2.0 to 3.0 M	1 cum	156409
133	TBSC-D.II-03	Best Teak Wood scantlings: above 3.0 M	1 cum	165888
134	TBSC-D.II-04	Best Teak Wood Planks: any thickness	1 cum	184847
III	SUB-SECTION	BURMA TEAK WOOD		
135	TBSC-D.III-01	Burma Teak Wood scantlings: up to 2.0 M	1 cum	201896
136	TBSC-D.III-02	Burma Teak Wood scantlings: 2.0 to 3.0 M	1 cum	207663
137	TBSC-D.III-03	Burma Teak Wood scantlings: above 3.0 M	1 cum	218417
138	TBSC-D.III-04	Burma Teak Wood Planks: any thickness	1 cum	236507
139	TBSC-D.III-05	Teak Wood scantlings of Grade A or First Grade of high-quality timber, superior colour, grain pattern, and durability of any size conforming to IS 12896:1990	1 cum	353150
140	TBSC-D.III-06	Teak Wood planks of Grade A or First Grade of high-quality timber, superior colour, grain pattern, and durability of any thickness conforming to IS 12896:1990	1 cum	381402
IV	SUB-SECTION	ASSAM TEAK WOOD		
141	TBSC-D.IV-01	Assam Teak Wood scantlings: any length	1 cum	54125
142	TBSC-D.IV-02	Assam Teak Wood Planks: any thickness	1 cum	78481
V	SUB-SECTION	SAL/ COUNTRY WOOD		
143	TBSC-D.V-01	Sal Wood scantlings: any length	1 cum	52615
144	TBSC-D.V-02	Sal Wood Planks: any thickness	1 cum	70153
VI	SUB-SECTION	ROOFING MATERIAL		
145	TBSC-D.VI-01	A.C sheet Corrugated 6 mm thick	1 Sqm	255
146	TBSC-D.VI-02	A.C sheet plain 4 m thick	1 Sqm	184
147	TBSC-D.VI-03	A.C sheet plain 6 m thick	1 Sqm	192
148	TBSC-D.VI-04	Plain or Corrugated Galvanized iron sheets as per IS 277 (0.1 mm to 0.8 mm thickness)	1 kg	71
149	TBSC-D.VI-05	Supply of Pre-painted Galvalume Trapezoidal Profile Roofing sheets with 0.50mm thickness, Coating: Alu-Zinc coating AZ150 GSM. Tensile Strength: 550 MPA. Paint coating: Regular Modified Polyester painting. Painting Thickness (Top): 18 to 20 Microns, (Bottom): 5 to 7 Microns. Sheet Width: 1.020, Length: Maximum 12 Meters with Regular Range Colours	1 Sqm	450
150	TBSC-D.VI-06	Supply of Pre-painted Galvalume Trapezoidal Profile Roofing sheets with 0.47mm thickness, Coating: Alu-Zinc coating AZ150 GSM. Tensile Strength: 550 MPA. Paint coating: Regular Modified Polyester painting. Painting Thickness (Top): 18 to 20 Microns, (Bottom): 5 to 7 Microns. Sheet Width: 1.020, Length: Maximum 12 Meters with Regular Range Colours	1 Sqm	438
151	TBSC-D.VI-07	Supply of Pre-painted Galvanized Trapezoidal Profile Roofing sheets with 0.50mm thickness, Coating: Zinc coating Z120 GSM. Tensile Strength: 300 MPA. Paint coating: Regular Modified Polyester painting. Painting Thickness (Top): 18	1 Sqm	394

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		to 20 Microns, (Bottom): 5 to 7 Microns. Sheet Width: 1.020, Length: Maximum 12 Meters with Regular Range Colours		
152	TBSC-D.VI-08	Supply of Pre-painted Galvanized Trapezoidal Profile Roofing sheets with 0.47mm thickness, Coating: Zinc coating Z120 GSM. Tensile Strength: 300 MPA. Paint coating: Regular Modified Polyester painting. Painting Thickness (Top): 18 to 20 Microns, (Bottom): 5 to 7 Microns. Sheet Width: 1.020, Length: Maximum 12 Meters with Regular Range Colours	1 Sqm	370
153	TBSC-D.VI-09	Supply of Roof Accessories medium size: Ridge, Barge Cap, Corner Trim, L-Flashing, Down Pipes, Gutter etc., with 0.50mm thick, Width: 0.585, Length: Maximum 2½ Meters	1 RM	302
154	TBSC-D.VI-10	Supply of Roof Accessories medium size: Ridge, Barge Cap, Corner Trim, L-Flashing, Down Pipes, Gutter etc., with 0.47mm thick, Width: 0.585, Length: Maximum 2½ Meters	1 RM	270
155	TBSC-D.VI-11	Supply of fibre reinforced corrugated sheets 6 mm thick(Non asbestos) in compliance with Type-A Category -C class-7 of IS 14871 for roofing	1 Sqm	371
156	TBSC-D.VI-12	Supply of pre painted fibre reinforced corrugated sheets 6mm thick(Non asbestos) in compliance with Type-A Category -C class-7 of IS 14871 for roofing	1 RM	441
157	TBSC-D.VI-13	75 mm long screws -	1 Each	8
158	TBSC-D.VI-14	G.I scam bolts & nuts	1 Each	9
159	TBSC-D.VI-15	G.I bolts & nuts	1 Each	9
160	TBSC-D.VI-16	G.I 'J' bolts 8 mm Diameter	1 Each	13
161	TBSC-D.VI-17	G.I Washers	1 Each	5
162	TBSC-D.VI-18	Limpet washers (for scam & 'J' bolts)	1 Each	5
163	TBSC-D.VI-19	Bitumen washers	1 Each	5
164	TBSC-D.VI-20	Supply of UV resistant multi-wall polycarbonate sheets for roofing of any colour - 6 mm thick	1 Sqm	1479
165	TBSC-D.VI-21	Aluminium universal glazing set 40 mm wide for jointing and fixing polycarbonate sheets	1 RM	151
166	TBSC-D.VI-22	Providing 10mm thick UV resistant multiwall polycarbonate sheets fixed to the purlins with aluminium universal glazing set 40mm wide for jointing and fixing sheets and 14 size self-drilling screws with neoprene washer. Side laps are stitched with self-tapping / drilling screws. End laps are to be sealed with 25x3 mm Butyl tape including cost and conveyance of all materials and labour charges, overheads and contractor's profits , etc. complete for finished item of work	1 Sqm	2400
167	TBSC-D.VI-23	Supply of Galvanized Roofing Deck sheets with 0.80mm -2mm thickness, Coating: Zinc coating Z125 / Z275/ Z 500 GSM. Yield Strength: E250. crest to crest width 130 mm length 12 metres : profile width 982mm and profile depth 44mm CR steel as per IS-513 HR steel as per IS 1079 and Galvanised Steel as per IS 277	1 kg	125
E	SECTION	STEEL MATERIALS		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	MILD STEEL MATERIALS		
168	TBSC-E.I-01	Supply & fixing of Rolling shutter made of 80 x 1.25 mm machine rolled CRCA laths, interlocked together through their entire length and jointed together at the ends by end-locks, mounted on specially designed pipe shaft of 50mm Diameter nominal bore MS B class pipe with brackets, plates, guide channels, stoppers, bottom locking plates and arrangements for inside & outside locking with push-pull operations including cost of hood cover and springs complete, painted with one coat of approved steel primer, locks, ball bearings, all accessories etc complete for finished item of work as per special Spec: 1108	1 Sqm	4592
169	TBSC-E.I-02	Supplying & fixing collapsible steel shutters with vertical, double channel of 20 x10x2 mm of 100 mm centre ,Bracers with flat iron 40x40x6 mm with 38 mm Diameter steel pulleys, the top, bottom and side vertical frames of the collapsible gate with 65x65mmx8mm MS Angle and middle guide rail at site height with 65mmx8mm MS flat for the pulleys to guide and fixed with necessary hold fasts, bolts, nuts, rivets, locking arrangements, stoppers, handles, all accessories all fixtures and painted with one coat of approved steel primer etc., complete for finished item of work as per special Spec 1105	1 Sqm	4017
170	TBSC-E.I-03	Expanded metal sheets as per IS-412-1962- Light Weight-25 mm(SWM)x75 mm (LWM)3.25 mm Wide and 1.25 mm thick	1 Sqm	186
171	TBSC-E.I-04	Expanded metal sheets as per IS-412-1962- Light Weight-20 mm(SWM)x60 mm(LWM) 2.50 mm Wide and 1.25 mm thick	1 Sqm	186
172	TBSC-E.I-05	Expanded metal sheets as per IS-412-1962- Light Weight-20 mm(SWM)x50 mm(LWM) 2.50 mm Wide and 1.25 mm thick	1 Sqm	186
173	TBSC-E.I-06	Expanded metal sheets as per IS-412-1962- Medium Weight-25 mm(SWM)x75 mm(LWM) 3.25 mm Wide and 1.60 mm thick	1 Sqm	253
174	TBSC-E.I-07	Expanded metal sheets as per IS-412-1962- Medium Weight-20 mm(SWM)x60 mm(LWM) 2.50 mm Wide and 1.60 mm thick	1 Sqm	253
175	TBSC-E.I-08	Expanded metal sheets as per IS-412-1962- Medium Weight-20 mm(SWM)x50 mm(LWM) 2.50 mm Wide and 1.60 mm thick	1 Sqm	253
176	TBSC-E.I-09	Expanded metal sheets as per IS-412-1962- Heavy Weight-25 mm(SWM)x75 mm(LWM) 3.25 mm Wide and 2.24 mm thick	1 Sqm	290
177	TBSC-E.I-10	Expanded metal sheets as per IS-412-1962- Heavy Weight-20 mm(SWM)x60 mm(LWM) 2.50 mm Wide and 2.24 mm thick	1 Sqm	290
178	TBSC-E.I-11	Expanded metal sheets as per IS-412-1962- Heavy Weight-20 mm(SWM)x50 mm(LWM) 2.50 mm Wide and 2.24 mm thick	1 Sqm	290

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
179	TBSC-E.I-12	Rabbit wire mesh (chicken mesh) of not less than 30 gauge	1 Sqm	23
180	TBSC-E.I-13	Country Nails	1 Kg	73
181	TBSC-E.I-14	Wire Nails	1 Kg	73
182	TBSC-E.I-15	Supply of Structural Steel hollow Tubular sections of 240 MPA grade conforming to IS 1161-2014 including loading, transportation and unloading charges	1 Kg	78
183	TBSC-E.I-16	Supply of Structural Steel hollow Square & Rectangular sections of 240 MPA grade conforming to IS 4923-1997 including loading, transportation and unloading charges	1 Kg	78
184	TBSC-E.I-17	Supply of Cold Rolled Close Annealed - CRCA Sheets with base material conforming to IS:513 - 2008 for Door / Window/ Glazing frames as per IS:4351 - 2003 and galvanized sections/ profiles as per IS:277 - 2003 and Furniture sheets (CR1 to CR5) including all loading, transportation and unloading charges	1 Kg	78
185	TBSC-E.I-18	Supply of Structural Steel hollow Tubular sections of 310 MPA grade conforming to IS 1161-2014 including loading, transportation and unloading charges	1 Kg	86
186	TBSC-E.I-19	Supply of Structural Steel hollow Square & Rectangular sections of 310 MPA grade conforming to IS 4923-1997 including loading, transportation and unloading charges	1 kg	86
187	TBSC-E.I-20	Supply of Structural Steel hollow Tubular sections of 355 MPA grade conforming to IS 1161-2014 including loading, transportation and unloading charges	1 kg	94
188	TBSC-E.I-21	Supply of Structural Steel hollow Square & Rectangular sections of 355 MPA grade conforming to IS 4923-1997 including loading, transportation and unloading charges	1 Kg	94
II	SUB-SECTION	GALVANIZED STEEL MATERIALS		
189	TBSC-E.II-01	Supplying Galvanized Steel Barbed wire conforming to IS 278 - 1978 : Type A - IOWA Type Designation as per standard specification	1 Kg	106
190	TBSC-E.II-02	Supplying Galvanized Steel Barbed wire conforming to IS 278 - 1978 : Type B - Glidden Type Designation as per standard specification	1 Kg	106
191	TBSC-E.II-03	Galvanized Iron fly proof wire mesh of not less than 20 gauge	1 Sqm	275
192	TBSC-E.II-04	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979: 2"x2" (50 mm x 50 mm) - 8 Gauge	1 Sqm	603
193	TBSC-E.II-05	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979: 2½"x2½" (63 mm x 63 mm) - 8 Gauge	1 Sqm	477
194	TBSC-E.II-06	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979: 3"x3" (76 mm x 76 mm) - 8 Gauge	1 Sqm	408
195	TBSC-E.II-07	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979: 4"x4" (102 mm x 102 mm) - 8 Gauge	1 Sqm	304

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
196	TBSC-E.II-08	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979 - PVC Coated - 2"x2" (50 mm x 50 mm) - 8 Gauge	1 Sqm	727
197	TBSC-E.II-09	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979 - PVC Coated - 2½"x2½" (63 mm x 63 mm) - 8 Gauge	1 Sqm	603
198	TBSC-E.II-10	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979 - PVC Coated - 3"x3" (76 mm x 76 mm) - 8 Gauge	1 Sqm	498
199	TBSC-E.II-11	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979 - PVC Coated - 4"x4" (102 mm x 102 mm) - 8 Gauge	1 Sqm	388
III	SUB-SECTION	STAINLESS STEEL MATERIALS		
200	TBSC-E.III-01	Stainless Steel Tubes, sections, plates, sheets & pipes of all sizes & Diameters for - 304 Grade	1 Kg	434
201	TBSC-E.III-02	Stainless steel fly proof wire mesh of not less than 20 gauge	1 Sqm	607
202	TBSC-E.III-03	Stainless Steel Tubes, sections, plates, sheets & pipes of all sizes & Diameters for - 316 Grade	1 Kg	450
F	SECTION	GLASS MATERIALS		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	PLAIN GLASS PANES		
203	TBSC-F.I-01	Plain Float Glass 4 mm thick	1 Sqm	465
204	TBSC-F.I-02	Plain Float Glass 5 mm thick	1 Sqm	589
205	TBSC-F.I-03	Plain Float Glass 6 mm thick	1 Sqm	730
206	TBSC-F.I-04	Plain Float Glass 8 mm thick	1 Sqm	981
207	TBSC-F.I-05	Plain Float Glass 10 mm thick	1 Sqm	1033
208	TBSC-F.I-06	Plain Float Glass 12 mm thick	1 Sqm	1238
II	SUB-SECTION	PIN HEADED GLASS PANES		
209	TBSC-F.II-01	Pin headed Glass 4 mm thick	1 Sqm	349
210	TBSC-F.II-02	Pin headed Glass 5 mm thick	1 Sqm	453
III	SUB-SECTION	TINTED GLASS PANES		
211	TBSC-F.III-01	Tinted - Bronze/ Green Glass 4 mm thick	1 Sqm	542
212	TBSC-F.III-02	Tinted - Bronze/ Green Glass 5 mm thick	1 Sqm	678
213	TBSC-F.III-03	Tinted - Bronze/ Green Glass 6 mm thick	1 Sqm	812
214	TBSC-F.III-04	Tinted - Bronze/ Green Glass 8 mm thick	1 Sqm	1163
215	TBSC-F.III-05	Tinted - Bronze/ Green Glass 10 mm thick	1 Sqm	1355
216	TBSC-F.III-06	Tinted - Bronze/ Green Glass 12 mm thick	1 Sqm	1626
217	TBSC-F.III-07	Reflective - Bronze/Green/Grey/Blue/Gold Glass 4mm thick	1 Sqm	622
218	TBSC-F.III-08	Reflective - Bronze/Green/Grey/Blue/Gold Glass 5mm thick	1 Sqm	778
219	TBSC-F.III-09	Reflective - Bronze/Green/Grey/Blue/Gold Glass 6mm thick	1 Sqm	933
220	TBSC-F.III-10	Reflective - Bronze/Green/Grey/Blue/Gold Glass 8mm thick	1 Sqm	1658
221	TBSC-F.III-11	Reflective - Bronze/Green/Grey/Blue/Gold Glass 10mm thick	1 Sqm	2073
222	TBSC-F.III-12	Reflective - Bronze/Green/Grey/Blue/Gold Glass 12mm thick	1 Sqm	2487
IV	SUB-SECTION	FROSTED/ GROUND GLASS PANES		
223	TBSC-F.IV-01	Frosted / Ground Glass 4 mm thick	1 Sqm	625
224	TBSC-F.IV-02	Frosted / Ground Glass 5 mm thick	1 Sqm	787
V	SUB-SECTION	TOUGHENED GLASS PANES		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
225	TBSC-F.V-01	Toughened Plain Glass 5 mm (including Glass)	1 Sqm	942
226	TBSC-F.V-02	Toughened Plain Glass 6 mm (including Glass)	1 Sqm	1088
227	TBSC-F.V-03	Toughened Plain Glass 8 mm (including Glass)	1 Sqm	1451
228	TBSC-F.V-04	Toughened Plain Glass 10 mm (including Glass)	1 Sqm	1738
229	TBSC-F.V-05	Toughened Plain Glass 12 mm (including Glass)	1 Sqm	2027
VI	SUB-SECTION	HERMETICALLY SEALED PANES - (Rates for following items are with 5 mm thick toughened clear float glass, rates for other glasses can be derived from adding/deducting the difference of cost of selected glass)		
230	TBSC-F.VI-01	Supplying and fixing of hermetically Sealed Insulated (IGU) Double Glazed Glass Unit (DGU) with 5 mm thick toughened Clear Glass both sides and hollow aluminium spacer bar frames where frame is bent at 90 degree angle and assembled with only one joint, called a bent frame filled with desiccant of appropriate grade molecular sieve desiccant of adsorption capacity by weight, 20-30% by weight, capacity to dry air down to an extremely low PPM level, <100 ppm (%RH) fixed to the glasses of specified thickness and quality with primary and secondary sealants of Poly ISO Butylene, or Butyl, primary sealant and Silicone and Polysulfide secondary sealants, to help fixing the IGU at the time of assembly and protect the gas filled spaces from moisture vapor penetration, chemical attack from cleaning fluids and glazing products, and liquid water penetration due to rain or condensation complete for Type I - Dry Air Insulated - Regular IGU	1 Sqm	3266
231	TBSC-F.VI-02	Supplying and fixing of hermetically Sealed Insulated (IGU) Double Glazed Glass Unit (DGU) with 5 mm thick toughened Clear Glass both sides and hollow aluminium spacer bar frames where frame is bent at 90 degree angle and assembled with only one joint, called a bent frame filled with desiccant of appropriate grade molecular sieve desiccant of adsorption capacity by weight, 20-30% by weight, capacity to dry air down to an extremely low PPMv level, <100 ppm (%RH) fixed to the glasses of specified thickness and quality with primary and secondary sealants of Poly ISO Butylene, or Butyl, primary sealant and Silicone and Polysulfide secondary sealants, to help fixing the IGU at the time of assembly and protect the gas filled spaces from moisture vapor penetration, chemical attack from cleaning fluids and glazing products, and liquid water penetration due to rain or condensation complete for Type II - Inert gases such as argon, krypton, and xenon - IGU	1 Sqm	3282
232	TBSC-F.VI-03	Supplying and fixing of hermetically Sealed Insulated (IGU) Double Glazed Glass Unit (DGU) using 5 mm thick toughened Clear Glass both sides and hollow aluminium spacer bar frames where frame is bent at 90 degree angle and	1 Sqm	3523

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		assembled with only one joint, called a bent frame filled with desiccant of appropriate grade molecular sieve desiccant of adsorption capacity by weight, 20-30% by weight, capacity to dry air down to an extremely low PPM level, <100 ppm (%RH) fixed to the glasses of specified thickness and quality with primary and secondary sealants of Poly ISO Butylene, or Butyl, primary sealant and Silicone and Polysulfide secondary sealants, to help fixing the IGU at the time of assembly and protect the gas filled spaces from moisture vapor penetration, chemical attack from cleaning fluids and glazing products, and liquid water penetration due to rain or condensation complete for Type III - Vacuum sealed IGU		
VII	SUB-SECTION	PERFORMANCE GLASS		
233	TBSC-F.VI-04	Providing low-emissivity coating for energy efficiency, high-performance glass with low U value, for recommended RHG, SRI, SHGC, and VLT as per green building - GRIHA/ LEED stipulations, for any thickness of glass (Extra on base glass cost)	1 Sqm	500
VIII	SUB-SECTION	FIRE RATED GLASS		
234	TBSC-F.VIII-01	Providing clear fire rated, having intumescent gel-filled single chambered, non-wired, toughened interlayered glass with 120 min. integrity (E 120), restrict heat radiation rise to 15 KW/Sq.m from a distance of 1m from glass (EW 120) & 20 min. Insulation (EI 20) with a visual light transmission of 86%, U-value of 5.4, sound reduction of 37 dB & compliance to class 1(B)1 category of Impact Resistance as per EN 12600 with anti-spontaneous breakages after Installation for any thickness of glass (Extra on base glass cost)	1 Sqm	500
G	SECTION	PAINTS & POLISHES		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	PRIMERS, FILLERS & BASES		
235	TBSC-G.I-01	Supply of water-based Cement Primer of Interior Grade- 1	1 Kg	173
236	TBSC-G.I-02	Supply of water-based Cement Primer of Exterior Grade- 2	1 Kg	221
237	TBSC-G.I-03	Supply of wall putty of White Cement or Polymer or Cement-based	1 Kg	41
238	TBSC-G.I-04	Acrylic spray plaster in paste form made with specially selected inert mineral fillers, antifungal agents to protect the material the acrylic binding medium used gives good surface adhesion any grade	1 Kg	33
239	TBSC-G.I-05	Supply of Red Oxide Primer Paint for iron works of Grade -1	1 Lit	149
240	TBSC-G.I-06	Supply of Zinc Chromate Yellow Oxide Primer paint for iron works	1 Lit	236
241	TBSC-G.I-07	Supply of Wood Primer	1 Lit	167
242	TBSC-G.I-08	Supply of Metal paste (Putty) for steel works	1 Kg	167

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
243	TBSC-G.I-09	Supply of Putty for woodwork (Powder chalk)	1 Kg	167
244	TBSC-G.I-10	Supply of White Lead	1 Kg	120
245	TBSC-G.I-11	Supply of Synthetic clear Varnish	1 Lit	167
246	TBSC-G.I-12	Supply of Spirit	1 Lit	118
247	TBSC-G.I-13	Supply of Linseed Oil	1 Lit	67
248	TBSC-G.I-14	Supply of thinner for melamine polish/ French polish	1 Lit	154
249	TBSC-G.I-15	Supply of thinner for Poly-urethane polish	1 Lit	314
250	TBSC-G.I-16	Supply of French Polish	1 Lit	217
251	TBSC-G.I-17	Supply of readymade Wax Polish	1 Kg	658
252	TBSC-G.I-18	Supply of wood adhesive compound	1 Kg	259
253	TBSC-G.I-19	Supply of anti-corrosive grade - 1 bitumen paint of black colour	1 Lit	594
254	TBSC-G.I-20	Acrylic coarse spray plaster to cover undulations in paste form made with specially selected inert mineral fillers, antifungal agents to protect the material the acrylic binding medium used gives good surface adhesion interior grade	1 Kg	18
255	TBSC-G.I-21	Supply of coarse wall putty of grey cement or polymer or cement-based to cover exterior undulations	1 Kg	50
256	TBSC-G.I-22	Supply of base coat as primer for natural textures and natural stone-based paints - Exterior grade	1 Kg	67
II	SUB-SECTION	LIME, DISTEMPERS & CEMENT PAINTS		
257	TBSC-G.II-01	Supply of paint grade lime for white / colour wash	1 Kg	27
258	TBSC-G.II-02	Supply of Dry Powder Distemper	1 Kg	51
259	TBSC-G.II-03	Supply of acrylic based Oil Bound washable Distemper	1 Kg	63
260	TBSC-G.II-04	Supply of Waterproof Cement paint	1 Kg	60
III	SUB-SECTION	EMULSION BASED PAINTS		
261	TBSC-G.III-01	Supply of acrylic emulsion paint interior grade having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	225
262	TBSC-G.III-02	Supply of acrylic emulsion paint exterior grade with silicon additives having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	236
263	TBSC-G.III-03	Supply of acrylic emulsion paint weatherproof water-based, modified acrylic with silicon additives exterior grade having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	260
264	TBSC-G.III-04	Supply of acrylic emulsion paint interior premium grade having VOC content less than 50gm/lit	1 Lit	263
265	TBSC-G.III-05	Supply of semi glossy acrylic emulsion paint exterior premium grade with silicon additives having VOC content less than 50gm/lit	1 Lit	373
266	TBSC-G.III-06	Supply of natural stone based high UV resistant topcoat exterior emulsion paint	1 Kg	82
IV	SUB-SECTION	SOLVENT BASED PAINTS		
267	TBSC-G.IV-01	Supply of solvent based latex paint having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	283
268	TBSC-G.IV-02	Supply of synthetic polymer luxury plastic	1 Lit	495

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		emulsion / solvent-based lustre paint of superior grade having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.		
V	SUB-SECTION	OIL BASED ENAMEL PAINTS		
269	TBSC-G.V-01	Supply of ready mixed Synthetic Enamel in all shades Grade - I / Polyurethane full gloss Enamel (IS - 13213) paints having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	289
270	TBSC-G.V-02	Supply of ready mixed Synthetic Enamel / Epoxy enamel (IS - 14209) paints in all shades Grade - II having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	221
VI	SUB-SECTION	TEXTURE PAINTS		
271	TBSC-G.VI-01	Exterior grade Texture ready mixed paint with sand texture added sand particles Acrylic copolymers and mineral compounds, bactericides and various additives having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Kg	43
272	TBSC-G.VI-02	Exterior grade Texture ready mixed plaster made with natural minerals - granite flakes/ marble flakes/ powder, sand and other carefully selected and sieved minerals in an acrylic binding medium having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Kg	55
273	TBSC-G.VI-03	Exterior grade natural textures ready mixed plaster made with natural mineral - granite flakes/marble flakes/powder, sand and other carefully selected and sieved minerals in an acrylic binding medium	1 Kg	80
274	TBSC-G.VI-04	Exterior grade natural textures in roller finish ready mixed plaster made with natural mineral - marble powder sand and other carefully selected and sieved minerals in an acrylic binding medium	1 Kg	83
VII	SUB-SECTION	SPECIAL PAINTS		
275	TBSC-G.VII-01	Supply of Melamine Polish	1 Lit	365
276	TBSC-G.VII-02	Supply of Interior Grade Poly-Urethane Polish	1 Lit	743
277	TBSC-G.VII-03	Supply of Exterior Grade Poly-Urethane Polish	1 Lit	907
278	TBSC-G.VII-04	Supply of grade-1 aluminium paint	1 Lit	297
H	SECTION	PARTICLE BOARDS		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	MELAMINE FACED PLAIN PARTICLE BOARD		
279	TBSC-H.I-01	Melamine faced Single Deco Plain Particle Board- 8 mm thick conforming to IS 3129	1 Sqm	711
280	TBSC-H.I-02	Melamine faced Single Deco Plain Particle Board- 12 mm thick conforming to IS 3129	1 Sqm	808
281	TBSC-H.I-03	Melamine faced Single Deco Plain Particle Board- 18 mm thick conforming to IS 3129	1 Sqm	935
282	TBSC-H.I-04	Melamine faced Single Deco Plain Particle Board- 25 mm thick conforming to IS 3129	1 Sqm	1061

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
283	TBSC-H.I-05	Melamine faced Single Deco Plain Particle Board- 35 mm thick conforming to IS 3129	1 Sqm	1761
284	TBSC-H.I-06	Melamine faced Twin Deco Plain Particle Board- 8 mm thick conforming to IS 3129	1 Sqm	820
285	TBSC-H.I-07	Melamine faced Twin Deco Plain Particle Board- 12 mm thick conforming to IS 3129	1 Sqm	935
286	TBSC-H.I-08	Melamine faced Twin Deco Plain Particle Board- 18 mm thick conforming to IS 3129	1 Sqm	1082
287	TBSC-H.I-09	Melamine faced Twin Deco Plain Particle Board- 25 mm thick conforming to IS 3129	1 Sqm	1198
288	TBSC-H.I-10	Melamine faced Twin Deco Plain Particle Board- 35 mm thick conforming to IS 3129	1 Sqm	2251
II	SUB-SECTION	INSULATING PARTICLE BOARDS		
289	TBSC-H.II-01	Natural Colour-Insulating Board - 12 mm thick conforming to IS 3348	1 Sqm	267
290	TBSC-H.II-02	Natural Colour-Insulating Board - 18 mm thick conforming to IS 3348	1 Sqm	392
291	TBSC-H.II-03	Natural Colour-Insulating Board - 25 mm thick conforming to IS 3348	1 Sqm	501
292	TBSC-H.II-04	White Insulating Board - 12 mm thick conforming to IS 3348	1 Sqm	324
293	TBSC-H.II-05	White Insulating Board - 18 mm thick conforming to IS 3348	1 Sqm	463
294	TBSC-H.II-06	White Insulating Board - 25 mm thick conforming to IS 3348	1 Sqm	412
III	SUB-SECTION	MEDIUM DENSITY FIBRE BOARDS		
295	TBSC-H.III-01	Medium Fibre Board: Interior Grade - 6 mm thick conforming to IS 15932	1 Sqm	434
296	TBSC-H.III-02	Medium Fibre Board: Interior Grade - 8 mm thick conforming to IS 15932	1 Sqm	492
297	TBSC-H.III-03	Medium Fibre Board: Interior Grade - 12 mm thick conforming to IS 15932	1 Sqm	657
298	TBSC-H.III-04	Medium Fibre Board: Interior Grade - 15 mm thick conforming to IS 15932	1 Sqm	835
299	TBSC-H.III-05	Medium Fibre Board: Interior Grade - 18 mm thick conforming to IS 15932	1 Sqm	932
300	TBSC-H.III-06	Medium Fibre Board: Interior Grade - 25 mm thick conforming to IS 15932	1 Sqm	1322
301	TBSC-H.III-07	Medium Fibre Board: Interior Grade - 30 mm thick conforming to IS 15932	1 Sqm	1596
302	TBSC-H.III-08	Medium Fibre Board: Interior Grade - 35 mm thick conforming to IS 15932	1 Sqm	1743
303	TBSC-H.III-09	Medium Fibre Board: Exterior Grade - 6 mm thick conforming to IS 15932	1 Sqm	589
304	TBSC-H.III-10	Medium Fibre Board: Exterior Grade - 8 mm thick conforming to IS 15932	1 Sqm	685
305	TBSC-H.III-11	Medium Fibre Board: Exterior Grade - 12 mm thick conforming to IS 15932	1 Sqm	908
306	TBSC-H.III-12	Medium Fibre Board: Exterior Grade - 15 mm thick conforming to IS 15932	1 Sqm	1140
307	TBSC-H.III-13	Medium Fibre Board: Exterior Grade - 18 mm thick conforming to IS 15932	1 Sqm	1275
308	TBSC-H.III-14	Medium Fibre Board: Exterior Grade - 25 mm thick conforming to IS 15932	1 Sqm	1700
309	TBSC-H.III-15	Medium Fibre Board: Exterior Grade - 30 mm thick conforming to IS 15932	1 Sqm	2116

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		thick conforming to IS 15932		
310	TBSC-H.III-16	Medium Fibre Board: Exterior Grade - 35 mm thick conforming to IS 15932	1 Sqm	2499
311	TBSC-H.III-17	MDF Board: Plain-Interior - 9 mm thick conforming to IS 15932	1 Sqm	398
312	TBSC-H.III-18	MDF Board: Plain-Interior - 12 mm thick conforming to IS 15932	1 Sqm	452
313	TBSC-H.III-19	MDF Board: Plain-Interior - 18 mm thick conforming to IS 15932	1 Sqm	559
314	TBSC-H.III-20	MDF Board: Plain-Interior - 25 mm thick conforming to IS 15932	1 Sqm	671
315	TBSC-H.III-21	MDF Board: Plain-Interior - 30 mm thick conforming to IS 15932	1 Sqm	1020
316	TBSC-H.III-22	MDF Board: Plain-Interior - 35 mm thick conforming to IS 15932	1 Sqm	1206
317	TBSC-H.III-23	MDF Board: Plain-Exterior - 9 mm thick conforming to IS 15932	1 Sqm	520
318	TBSC-H.III-24	MDF Board: Plain-Exterior - 12 mm thick conforming to IS 15932	1 Sqm	559
319	TBSC-H.III-25	MDF Board: Plain-Exterior - 18 mm thick conforming to IS 15932	1 Sqm	732
320	TBSC-H.III-26	MDF Board: Plain-Exterior - 25 mm thick conforming to IS 15932	1 Sqm	919
321	TBSC-H.III-27	MDF Board: Plain-Exterior - 30 mm thick conforming to IS 15932	1 Sqm	1206
322	TBSC-H.III-28	MDF Board: Plain-Exterior - 35 mm thick conforming to IS 15932	1 Sqm	1391
323	TBSC-H.III-29	MDF Board: Interior-One Side Laminated -9 mm thick conforming to IS 15932	1 Sqm	622
324	TBSC-H.III-30	MDF Board: Interior-One Side Laminated -12 mm thick conforming to IS 15932	1 Sqm	704
325	TBSC-H.III-31	MDF Board: Interior-One Side Laminated -18 mm thick conforming to IS 15932	1 Sqm	818
326	TBSC-H.III-32	MDF Board: Interior-One Side Laminated -25 mm thick conforming to IS 15932	1 Sqm	919
327	TBSC-H.III-33	MDF Board: Interior-One Side Laminated -30 mm thick conforming to IS 15932	1 Sqm	1328
328	TBSC-H.III-34	MDF Board: Interior-One Side Laminated -35 mm thick conforming to IS 15932	1 Sqm	1417
329	TBSC-H.III-35	MDF Board: Exterior-One Side Laminated -9 mm thick conforming to IS 15932	1 Sqm	714
330	TBSC-H.III-36	MDF Board: Exterior-One Side Laminated -12 mm thick conforming to IS 15932	1 Sqm	804
331	TBSC-H.III-37	MDF Board: Exterior-One Side Laminated -18 mm thick conforming to IS 15932	1 Sqm	909
332	TBSC-H.III-38	MDF Board: Exterior-One Side Laminated -25 mm thick conforming to IS 15932	1 Sqm	1063
333	TBSC-H.III-39	MDF Board: Exterior-One Side Laminated -30 mm thick conforming to IS 15932	1 Sqm	1417
334	TBSC-H.III-40	MDF Board: Exterior-One Side Laminated -35 mm thick conforming to IS 15932	1 Sqm	1504
335	TBSC-H.III-41	MDF Board: Interior-Both Side Laminated -9 mm thick conforming to IS 15932	1 Sqm	710
336	TBSC-H.III-42	MDF Board: Interior-Both Side Laminated -12 mm thick conforming to IS 15932	1 Sqm	804

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
337	TBSC-H.III-43	MDF Board: Interior-Both Side Laminated -18 mm thick conforming to IS 15932	1 Sqm	919
338	TBSC-H.III-44	MDF Board: Interior-Both Side Laminated -25 mm thick conforming to IS 15932	1 Sqm	1154
339	TBSC-H.III-45	MDF Board: Interior-Both Side Laminated -30 mm thick conforming to IS 15932	1 Sqm	1417
340	TBSC-H.III-46	MDF Board: Interior-Both Side Laminated -35 mm thick conforming to IS 15932	1 Sqm	1504
341	TBSC-H.III-47	MDF Board: exterior-Both Side Laminated -9 mm thick conforming to IS 15932	1 Sqm	804
342	TBSC-H.III-48	MDF Board: exterior-Both Side Laminated -12 mm thick conforming to IS 15932	1 Sqm	909
343	TBSC-H.III-49	MDF Board: exterior-Both Side Laminated -18 mm thick conforming to IS 15932	1 Sqm	1074
344	TBSC-H.III-50	MDF Board: exterior-Both Side Laminated -25 mm thick conforming to IS 15932	1 Sqm	1174
345	TBSC-H.III-51	MDF Board: exterior-Both Side Laminated -30 mm thick conforming to IS 15932	1 Sqm	1486
346	TBSC-H.III-52	MDF Board: exterior-Both Side Laminated -35 mm thick conforming to IS 15932	1 Sqm	1593
IV	SUB-SECTION	CEMENT BONDED PLAIN & PARTICLE BOARDS		
347	TBSC-H.IV-01	Cement Bonded Board conforming to IS:14862-2000 - 4mm Thick	1 Sqm	169
348	TBSC-H.IV-02	Cement Bonded Board conforming to IS:14862-2000 - 6mm Thick	1 Sqm	242
349	TBSC-H.IV-03	Cement Bonded Board conforming to IS:14862-2000 - 8mm Thick	1 Sqm	310
350	TBSC-H.IV-04	Cement Bonded Board conforming to IS:14862-2000 - 10mm Thick	1 Sqm	356
351	TBSC-H.IV-05	Cement Bonded Board conforming to IS:14862-2000 - 12mm Thick	1 Sqm	445
352	TBSC-H.IV-06	Cement Bonded Board conforming to IS:14862-2000 - 14mm Thick	1 Sqm	496
353	TBSC-H.IV-07	Cement Bonded Board conforming to IS:14862-2000 - 16mm Thick	1 Sqm	564
354	TBSC-H.IV-08	Cement Bonded Board conforming to IS:14862-2000 - 18mm Thick	1 Sqm	639
355	TBSC-H.IV-09	Cement Bonded Board conforming to IS:14862-2000 - 20mm Thick	1 Sqm	677
356	TBSC-H.IV-10	Cement bonded particle board conforming to IS 14276-6 mm thick	1 Sqm	259
357	TBSC-H.IV-11	Cement bonded particle board conforming to IS 14276- 8 mm thick	1 Sqm	353
358	TBSC-H.IV-12	Cement bonded particle board conforming to IS 14276- 10 mm thick	1 Sqm	437
359	TBSC-H.IV-13	Cement bonded particle board conforming to IS 14276- 12 mm thick	1 Sqm	525
360	TBSC-H.IV-14	Cement bonded particle board conforming to IS 14276- 16 mm thick	1 Sqm	692
361	TBSC-H.IV-15	Cement bonded particle board conforming to IS 14276- 20 mm thick	1 Sqm	858
362	TBSC-H.IV-16	Cement bonded particle board conforming to IS 14276- 25 mm thick	1 Sqm	1094
363	TBSC-H.IV-17	Cement bonded particle board conforming to IS 14276- 30 mm thick	1 Sqm	1304

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
364	TBSC-H.IV-18	Cement bonded particle board conforming to IS 14276- 40 mm thick	1 Sqm	1715
365	TBSC-H.IV-19	Pre-laminated cement bonded particle board-6 mm thick	1 Sqm	611
366	TBSC-H.IV-20	Pre-laminated cement bonded particle board-8 mm thick	1 Sqm	660
367	TBSC-H.IV-21	Pre-laminated cement bonded particle board- 10 mm thick	1 Sqm	708
368	TBSC-H.IV-22	Pre-laminated cement bonded particle board- 12 mm thick	1 Sqm	775
369	TBSC-H.IV-23	Pre-laminated cement bonded particle board- 16 mm thick	1 Sqm	861
370	TBSC-H.IV-24	50 mm thick SOLID WALL PANEL Sandwich panels made of light weight FRACC non-asbestos fibre reinforced cement concrete	1 Sqm	1127
371	TBSC-H.IV-25	75 mm thick SOLID WALL PANEL Sandwich panels made of light weight FRACC non-asbestos fibre reinforced cement concrete	1 Sqm	1353
J	SECTION	PLYWOODS, LAMINATES & VENEERS		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	MOISTURE RESISTANT (MR) GRADE		
372	TBSC-J.I-01	3 Ply - 4 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	429
373	TBSC-J.I-02	5 Ply - 6 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	474
374	TBSC-J.I-03	5 Ply - 8 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	556
375	TBSC-J.I-04	5 Ply - 9 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	556
376	TBSC-J.I-05	9 Ply - 12 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	698
377	TBSC-J.I-06	9 Ply - 15 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	1027
378	TBSC-J.I-07	9 Ply - 18 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	1006
II	SUB-SECTION	BOILING WATER RESISTANT (BWR) GRADE		
379	TBSC-J.II-01	3 Ply - 4 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	491
380	TBSC-J.II-02	5 Ply - 6 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	575
381	TBSC-J.II-03	5 Ply - 8 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	715
382	TBSC-J.II-04	5 Ply - 9 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	677
383	TBSC-J.II-05	9 Ply - 12 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	884
384	TBSC-J.II-06	9 Ply - 15 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	1268
385	TBSC-J.II-07	9 Ply - 19 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	1272
III	SUB-SECTION	VENEERED DECORATIVE PLYWOOD		
386	TBSC-J.III-01	3 Ply-4 mm thick One side Teak Veneered Decorative Plywood conforming to IS:1328	1 Sqm	635
387	TBSC-J.III-02	5 Ply - 6 mm thick One side Teak Veneered	1 Sqm	825

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Decorative Plywood conforming to IS:1328		
388	TBSC-J.III-03	5 Ply - 9 mm thick One side Teak Veneered Decorative Plywood conforming to IS:1328	1 Sqm	1058
389	TBSC-J.III-04	9 Ply - 12 mm thick One side Teak Veneered Decorative Plywood conforming to IS:1328	1 Sqm	1347
390	TBSC-J.III-05	5 Ply - 9 mm thick Both sides Teak Veneered Decorative Plywood conforming to IS:1328	1 Sqm	1380
391	TBSC-J.III-06	9 Ply - 12 mm thick Both sides Teak Veneered Decorative Plywood conforming to IS:1328	1 Sqm	1609
IV	SUB-SECTION	LAMINATES		
392	TBSC-J.IV-01	Melamine Laminate Sheets - Glossy Finish: 1.00 mm thick	1 Sqm	425
393	TBSC-J.IV-02	Melamine Laminate Sheets - Glossy Finish: 1.50 mm thick	1 Sqm	609
394	TBSC-J.IV-03	Melamine Laminate Sheets - Glossy Finish: 1.80 mm thick	1 Sqm	668
395	TBSC-J.IV-04	Melamine Laminate Sheets - Mat Finish: 1.00 mm thick	1 Sqm	452
396	TBSC-J.IV-05	Melamine Laminate Sheets - Mat Finish: 1.50 mm thick	1 Sqm	628
397	TBSC-J.IV-06	Melamine Laminate Sheets - Mat Finish: 1.80 mm thick	1 Sqm	677
398	TBSC-J.IV-07	HIGH PRESSURE LAMINATES - HPL Compact Laminates of 6 mm thickness for exterior elevation	1 Sqm	3710
399	TBSC-J.IV-08	HIGH PRESSURE LAMINATES - HPL Compact Laminates of 12 mm thickness for any application	1 Sqm	4842
400	TBSC-J.IV-09	HIGH PRESSURE LAMINATES - HPL Compact Laminates of 8 mm thickness for any application	1 Sqm	3840
V	SUB-SECTION	COMMERCIAL VENEERS		
401	TBSC-J.V-01	Teak Veneer Lamination of 4 mm thick with Pencil Grains conforming to IS 14315	1 Sqm	475
402	TBSC-J.V-02	Teak Veneer Lamination of 4 mm thick with Natural Grains conforming to IS 14315	1 Sqm	873
VI	SUB-SECTION	NATURAL FIBRE COMPOSITE BOARDS		
		Single extruded Natural Fibre Composite (NFC) board comprising of Natural Fibres derived from agri-residuals like rice husk and stalk, nontoxic natural minerals like calcium carbonate, fillers, processing additives, lubricants and heat stabilisers - bonded with Polyvinyl Chloride resin, having minimum density of 700 Kg/CBM, screw withdrawal strength of 1800 N (Face) and 900 N (edge), minimum compressive strength 40 MPA, modulus of elasticity 1000 N/mm ² and resistance to spread of flame as per Class 1/A category with everlasting property of being termite/borer proof, water proof and flame retardant, smoke suppressant		
403	TBSC-J.VI-01	Thickness 6mm of minimum density 700 Kg/cum	1 Sqm	1071
404	TBSC-J.VI-02	Thickness 8mm of minimum density 700 Kg/cum	1 Sqm	1338
405	TBSC-J.VI-03	Thickness 12mm of minimum density 700 Kg/cum	1 Sqm	1628
406	TBSC-J.VI-04	Thickness 15mm of minimum density 700 Kg/cum	1 Sqm	1996
407	TBSC-J.VI-05	Thickness 16mm of minimum density 700 Kg/cum	1 Sqm	2153
408	TBSC-J.VI-06	Thickness 18mm of minimum density 700 Kg/cum	1 Sqm	2308

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
409	TBSC-J.VI-07	Thickness 20mm of minimum density 700 Kg/cum	1 Sqm	2643
410	TBSC-J.VI-08	Thickness 25mm of minimum density 700 Kg/cum	1 Sqm	3491
411	TBSC-J.VI-09	Thickness 30mm of minimum density 700 Kg/cum	1 Sqm	4182
412	TBSC-J.VI-10	Thickness 6mm of minimum density 800 Kg/cum	1 Sqm	1205
413	TBSC-J.VI-11	Thickness 8mm of minimum density 800 Kg/cum	1 Sqm	1506
414	TBSC-J.VI-12	Thickness 12mm of minimum density 800 Kg/cum	1 Sqm	1823
415	TBSC-J.VI-13	Thickness 15mm of minimum density 800 Kg/cum	1 Sqm	2230
416	TBSC-J.VI-14	Thickness 16mm of minimum density 800 Kg/cum	1 Sqm	2409
417	TBSC-J.VI-15	Thickness 18mm of minimum density 800 Kg/cum	1 Sqm	2587
418	TBSC-J.VI-16	Thickness 20mm of minimum density 800 Kg/cum	1 Sqm	2966
419	TBSC-J.VI-17	Thickness 25mm of minimum density 800 Kg/cum	1 Sqm	3908
420	TBSC-J.VI-18	Thickness 30mm of minimum density 800 Kg/cum	1 Sqm	4683
K	SECTION	CEILINGS, WALL PARTITIONS & WALL LININGS		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	FALSE CEILINGs - TILES/ SHEETS		
421	TBSC-K.I-01	Gypsum Board tiles of size not less than 0.595 M x 0.595 M of 12.5 mm thick as per IS 2095 -1992	1 Sqm	297
422	TBSC-K.I-02	Gypsum Board tiles of size not less than 0.595 M x 0.595 M of 9 mm thick as per IS 2095 -1992	1 Sqm	290
423	TBSC-K.I-03	Gypsum Board Plain sheet 12.5 mm thick as per IS 2095 -1993	1 Sqm	263
424	TBSC-K.I-04	DELETED		
425	TBSC-K.I-05	14 mm - Mineral Fibre sheet 600 x 600 of Board / Tegular Edge tiles with a Humidity Resistance of 90% RH, Average NRC 0.50, Light Reflectance >80%, Thermal Conductivity $\lambda = 0.052$ to 0.057 w/mk, Fire Performance Class 0/Class 1	1 Sqm	621
426	TBSC-K.I-06	15 mm - Mineral Fibre sheet 600 x 600 of Board / Tegular Edge tiles with a Humidity Resistance of 95% RH, Average NRC 0.50, Light Reflectance >85%, Thermal Conductivity $\lambda = 0.052$ to 0.057 w/mk, Fire Performance Class 0/Class 1	1 Sqm	727
427	TBSC-K.I-07	16 mm - Tegular Edge 600 x 600 of Board / Tegular/ Micro look Edge tiles with a Humidity Resistance of 99% RH, Average NRC 0.60, Light Reflectance >85%, Thermal Conductivity $\lambda = 0.052$ to 0.057 w/mk, Fire Performance Class 0/Class 1	1 Sqm	782
428	TBSC-K.I-08	Designer ceiling Cement Boards -thickness 3.2 mm	1 Sqm	273
429	TBSC-K.I-09	High pressure steam cured Cement Boards 4 mm thick	1 Sqm	148
430	TBSC-K.I-10	High pressure steam cured Cement Boards 6 mm thick	1 Sqm	220
431	TBSC-K.I-11	High pressure steam cured Cement Boards 8 mm thick	1 Sqm	293
432	TBSC-K.I-12	High pressure steam cured Cement Boards 10 mm thick	1 Sqm	365
433	TBSC-K.I-13	High pressure steam cured Cement Boards 12 mm thick	1 Sqm	437
434	TBSC-K.I-14	High pressure steam cured Cement Boards 14 mm thick	1 Sqm	509
435	TBSC-K.I-15	High pressure steam cured Cement Boards 16 mm thick	1 Sqm	585

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
436	TBSC-K.I-16	High pressure steam cured Cement Boards 18 mm thick	1 Sqm	655
437	TBSC-K.I-17	High pressure steam cured Cement Boards 20 mm thick	1 Sqm	729
438	TBSC-K.I-18	High pressure steam cured designer Cement Boards 4 mm thick	1 Sqm	216
439	TBSC-K.I-19	High pressure steam cured designer Cement Boards 6 mm thick	1 Sqm	317
440	TBSC-K.I-20	Calcium Silicate Boards - 6mm thick	1 Sqm	244
441	TBSC-K.I-21	Calcium Silicate Boards - 8mm thick	1 Sqm	324
442	TBSC-K.I-22	Calcium Silicate Boards - 10mm thick	1 Sqm	406
443	TBSC-K.I-23	Calcium Silicate Boards - 12mm thick	1 Sqm	485
444	TBSC-K.I-24	Supply of Thermocol 12 mm thick sheets	1 Sqm	30
445	TBSC-K.I-25	Supply of Thermocol 19 mm thick sheets	1 Sqm	50
446	TBSC-K.I-26	Supplying and fixing of false ceiling using Plaster of Paris Boards 12 mm thick with standard GI ceiling angles, sections perimeter channels including cost and conveyance of all materials and labour charges etc complete	1 Sqm	473
447	TBSC-K.I-27	Supplying and fixing of false ceiling using Plaster of Paris Boards 10 mm thick with standard GI ceiling angles, sections perimeter channels including cost and conveyance of all materials and labour charges etc complete	1 Sqm	395
448	TBSC-K.I-28	Supply and fixing false ceiling using 8 mm thick Cement Bonded particle boards conforming to IS 14276 with galvanized and pre painted steel T section of size 24mm x 38mm x 0.3 mm for main T duty pre punched to accept cross T section of size 24mm x 30mm x 0.3 mm duly punched at both ends for insertion into main T. The grid size will be 610mm x 610mm. The framework (grid) is suspended to the roof by using G.I flat of 0.60mm or 14-gauge G.I wire with necessary fixers to the roof and framework the cost is inclusive of necessary hardware, labour, one coat of primer (Both side) and two coats of smooth finish on visible side.	1 Sqm	1347
449	TBSC-K.I-29	Providing and fixing false ceiling consisting of 600 mm x 600 mm, Solid PVC insulation panels having wall thickness of 1mm thick plain PVC rigid foam sheet and EPS as defined in of desired thickness depending on insulation required shall be insert in a framework made using anodized aluminium Tee section of sizes 1"X1" (25X25mm, 19 gauge or 1mm thick) in square pattern of grid sizes of 2'X2' (600X600mm). The aluminium framework is supported from the ceiling with the help of G.I. hook and G.I. wire/6mm.M.S. rods of required sizes to maintain proper level etc. the aluminium framework is supported on side wall with the use of aluminium 1"X1" (25X25mm) angles, complete as per direction of Engineer-in-Charge & drawing	1 Sqm	1467
450	TBSC-K.I-30	Supply and fixing of PVC false ceiling on MS/GI made skeleton framework. The frame shall be 24 X 48mm MS tube section fixed along with the	1 Sqm	1606

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		wall. The entire framework shall be concealed with PVC section having overall dimensions of 6 X 250 mm with a wall thickness of 1mm $\pm$ 0.3mm with tongue and groove system, provided with necessary arrangements for electrical connections, complete, for finished item of work.		
451	TBSC-K.I-31	15 mm - Micro Look Edge 600 x 600 of Board / Tegular/ Micro look Edge tiles with a Humidity Resistance of 95% RH, Average NRC 0.90, Light Reflectance >88%, Thermal Conductivity λ = 0.032 w/mk, Fire Performance Class 0/Class 1 suitable for Green Building application, with Recycled content of 88% (FG)	1 Sqm	1657
452	TBSC-K.I-32	16 mm - Tegular Edge 600 x 600 of Board / Tegular/ Micro look Edge tiles with a Humidity Resistance of 99% RH, Average NRC 0.55, Light Reflectance >84%, Thermal Conductivity λ = 0.052 to 0.057 w/mk, Fire Performance Class 0/Class 1	1 Sqm	735
453	TBSC-K.I-33	Providing & Fixing of Lay-in-metal plain ceiling System consisting of 600 x 600mm Lay in GI tiles of pre coated galvanized steel in 0.5 mm thickness in white colour to be laid on grid systems with 15mm wide T - section flanges but excluding cost of Grid systems complete for finished item of work	1 Sqm	799
454	TBSC-K.I-34	Providing & Fixing of GI Lay in Standard Perforated(2.5mm diameter-16% open area) metal ceiling consisting of 600 x 600 mm Lay in tiles of pre coated galvanized steel in 0.5 mm thickness in Global white colour acoustical fleece hot pressed to the back of the perforated tile to be laid on grid systems with 0.5 mm thickness in white colour with 15mm wide T - section flanges but excluding cost of Grid systems and having rotary stitching on the Main Runner, 1200 mm & 600 mm Cross Tees and the tiles with NRC of 0.70, Fire Performance of Class A2-s1.d0 as per EN13501 standard in module size of 600 X 600 mm suitable for Green Building application, with Recycled content of 25% complete for finished item of work	1 Sqm	1146
		Providing and fixing false ceiling at all heights with GRG (Glass Fibre Reinforced Gypsum) false ceiling tiles of size 595 x 595 mm of approved texture, design and patterns having moisture content less than 2% humidity resistance of 99%, NRC 0.50 to 0.75 as per IS 8225:1987, Non-combustible as per BS 476 part 4 1970 and light reflectance of 85% minimum to be laid in true horizontal level suspended on inter locking metal T grid of hot dipped galvanized iron section of 0.33 mm thick galvanized @ 120 gms per sqm including both sides, comprising of main T runners of size 15x32mm of length 3000mm, cross T of size 15x32mm of length 1200 mm and		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		secondary intermediate cross T of size 15x32mm of length 600mm to form grid module of size 600 x 600mm suspended from ceiling using galvanized mild steel items galvanizing @ 80 grams per sqm i.e. 50mm long, 8mm outer diameter, M-6 dash fasteners, 6mm dia fully threaded hanger rod up to 1000mm length and L shape level adjuster of size 85x25x2 mm. Galvanized iron permitter wall angle of size 24x24x0.40mm of length 3000mm to fixed on periphery wall/partition with help of plastic rawl plugs at 450mm centre to centre and 40mm long dry wall SS screws. The work shall be carried out as per specifications, drawing and as per directions of Engineer-in-Charge		
455	TBSC-K.I-35	GRG (Glass Fibre Reinforced Gypsum) false ceiling with fully perforated 10mm thick square edged GRG false ceiling tiles	1 Sqm	1811
456	TBSC-K.I-36	GRG (Glass Fibre Reinforced Gypsum) false ceiling with semi perforated 12mm thick micro tegular edged GRG false ceiling tiles	1 Sqm	1736
457	TBSC-K.I-37	Providing and fixing false ceiling at all heights with GRG (Glass Fibre Reinforced Gypsum) false ceiling tiles of size 595 x 595 mm of approved texture, design and patterns having moisture content less than 2% humidity resistance of 99%, NRC 0.60 to 0.75 as per IS 8225:1987, Non-combustible as per BS 476 part 4 1970 and light reflectance of 85% minimum to be laid in true horizontal level suspended on inter locking metal silhouette T grid of hot dipped galvanized iron section of 0.33 mm thick galvanized @ 120 gms per sqm including both sides, comprising of main T runners of size 15x32mm of length 3600mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32mm of length 600mm to form grid module of size 600 x 600mm suspended from ceiling using galvanized mild steel items galvanizing @ 80 grams per sqm i.e. 50mm long, 8mm outer diameter, M-6 dash fasteners, 6mm dia fully threaded hanger rod up to 1000mm length and L shape level adjuster of size 85x25x2 mm. Galvanized iron permitter wall angle of size 24x24x0.40mm of length 3000mm to fixed on periphery wall/partition with help of plastic rawl plugs at 450mm centre to centre and 40mm long dry wall SS screws. The work shall be carried out as per specifications, drawing and as per directions of Engineer-in-Charge with semi perforated 12mm thick micro tegular edged GRG false ceiling tiles	1 Sqm	1913
458	TBSC-K.I-38	Providing and fixing false ceiling at all heights with 15mm thick eco-friendly integral densified Board/tegular edged light weight calcium silicate false ceiling tiles having non cementitious calcium silicate reinforced with fibres and natural fillers with recycled content of more than	1 Sqm	1837

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		50%. False ceiling tile of size 595x595 mm of approved texture, design and patterns having NRC i.e. Noise reduction coefficient of 0.1 to 0.12 for plain and designer range of tiles HEXA/QUADRA and 0.5 to 0.75 for semi perforated and fully perforated tiles SPINTONE/COSMOS/GLOBE, Light reflectance of 85% minimum Nom combustible as per BS 476 part 4, Fire performance as per BS 476 Part 6 & 7, Relative humidity Resistance of 100%, thermal conductivity of 0.048 W/m.K to 0.050 W/m.K as per IS 3346/1980. The tile shall have average body density of 350 kg/m3 as per ECBC code 2007 and average edge density of 450kg/m3 the tile shall be primer coated on both sides and the fair surface shall be having a factory finish in two coats of white dispersion type solvent free paint in true horizontal level suspended on inter locking metal T grid of hot dipped galvanized iron section of 0.33mm thick galvanized @ 120 grams per sqm including both sides comprising of main T runners of size 24x38mm of length 3600mm cross T of size 24x32mm of length 1200mm and cross T of size 24x32mm of length 600mm to form grid module of size 600x600mm suspended from ceiling GI slotted cleats of size 25x35x1.6mm fixed to ceiling with 12.5mm dia and 50mm long dash fasteners, 4mm GI adjustable rods with galvanized steel level clips of size 85x30x0.8mm spaced 1200mm centre to centre along main T bottom exposed with 24mm of all T sections wall angle of size 24x24x0.40mm of length 3000mm to be fixed on periphery wall/partition with the help of plastic rawl plugs at 450 with 15mm thick integral densified tegular edged light weight calcium silicate false ceiling tiles		
459	TBSC-K.I-39	Providing and fixing false ceiling at all heights with 15mm thick eco-friendly integral densified Board/tegular edged light weight calcium silicate false ceiling tiles having non cementitious calcium silicate reinforced with fibres and natural fillers with recycled content of more than 50%. False ceiling tile of size 595x595 mm of approved texture, design and patterns having NRC i.e. Noise reduction coefficient of 0.1 to 0.15 for plain and designer range of tiles HEXA/QUADRA and 0.5 to 0.75 for semi perforated and fully perforated tiles SPINTONE/COSMOS/GLOBE, Light reflectance of 85% minimum Nom combustible as per BS 476 part 4, Fire performance as per BS 476 Part 6 & 7, Relative humidity Resistance of 100%, thermal conductivity of 0.048 W/m.K to 0.050 W/m.K as per IS 3346/1980. The tile shall have average body density of 350 kg/m3 as per ECBC code 2007 and average edge density of 450kg/m3 the tile	1 Sqm	2077

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		shall be primer coated on both sides and the fair surface shall be having a factory finish in two coats of white dispersion type solvent free paint in true horizontal level suspended on inter locking metal T grid of hot dipped galvanized mild steel powder coated section of 0.40 mm thick silhouetted white/black profile compiling main T runners of size 42x15mm of length 3600mm cross T of size 42x15mm of length 1200mm and cross T of size 42x15mm of length 600mm to form grid module of size 600x600mm suspended from ceiling GI slotted cleats of size 25x35x1.6mm fixed to ceiling with 12.5mm dia and 50mm long dash fasteners, 4mm GI adjustable rods with galvanized steel level clips of size 85x30x0.8mm spaced 1200mm centre to centre along main T bottom exposed with 24mm of all T sections wall angle of size 22x19x0.40mm of length 3000mm to be fixed on periphery wall/partition with the help of plastic rawl plugs at 450 with 15mm thick integral densified tegular edged light weight calcium silicate false ceiling tiles		
460	TBSC-K.I-40	Providing and fixing of false ceiling with powder coated exposed GI grid suspension system E Grid T 2430 or equivalent load carrying capacity with mid span deflection not exceeding 1/360 span with hanger spacing of 1200mm c/c consisting of main runner 3600mm long, Cross Tee 1200mm/60mm long and wall angle. The wall angle shall be fixed on PVC dash fasteners on the perimeter of the wall by steel screws with distance 300mm c/c, The main runners to be placed @ 1200mm, Cross tee 1200mm will be inserted in the pre-cut slots of main runner at a regular interval of 600mm to form a modular grid of 1200mm x 600mm. Additional cross tees of 600mm shall be placed perpendicular to the cross tee 1200mm long to finally form a grid of 600mm x 600mm. Grid of module size 600mmx600mm shall be supported by 3mm dia GI wire from purlins/soffit. 4mm thick High-pressure steam cured non-asbestos fibre cement standard ceiling board density>1299 kg/m ³ , Modulus of rupture - 15.85 Mpa, Thermal conductivity - 0.0872 W/mK of size 595mm x 595mm confirming to IS 14862 and Type B category III of ISO 8336:1993, reaction to fire A2s1d0 tested as per EN13501 Part I and BS 476 part 4,5,6&7 should be placed in the Grid module to form a false ceiling. All complete as per drawing and directions of Engineer-in-Charge	1 Sqm	1231
461	TBSC-K.I-41	Providing and fixing of false ceiling with powder coated exposed GI grid suspension system E Grid T 2430 or equivalent load carrying capacity with mid span deflection not exceeding 1/360 span with hanger spacing of 1200mm c/c consisting of	1 Sqm	1412

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		main runner 3600mm long, Cross Tee 1200mm/60mm long and wall angle. The wall angle shall be fixed on PVC dash fasteners on the perimeter of the wall by steel screws with distance 300mm c/c, The main runners to be placed @ 1200mm, Cross tee 1200mm will be inserted in the pre-cut slots of main runner at a regular interval of 600mm to form a modular grid of 1200mm x 600mm. Additional cross tees of 600mm shall be placed perpendicular to the cross tee 1200mm long to finally form a grid of 600mm x 600mm. Grid of module size 600mmx600mm shall be supported by 3mm dia GI wire from purlins/soffit. 6mm thick High-pressure steam cured non-asbestos fibre cement standard ceiling board density>1299 kg/m ³ , Modulus of rupture - 15.85 Mpa, Thermal conductivity - 0.0872 W/mK of size 595mm x 595mm confirming to IS 14862 and Type B category III of ISO 8336:1993, reaction to fire A2s1d0 tested as per EN13501 Part I and BS 476 part 4,5,6&7 should be placed in the Grid module to form a false ceiling. All complete as per drawing and directions of Engineer-in-Charge		
462	TBSC-K.I-42	Providing and fixing of false ceiling with powder coated exposed GI grid suspension system E Grid T 2430 or equivalent load carrying capacity with mid span deflection not exceeding 1/360 span with hanger spacing of 1200mm c/c consisting of main runner 3600mm long, Cross Tee 1200mm/60mm long and wall angle. The wall angle shall be fixed on PVC dash fasteners on the perimeter of the wall by steel screws with distance 300mm c/c, The main runners to be placed @ 1200mm, Cross tee 1200mm will be inserted in the pre-cut slots of main runner at a regular interval of 600mm to form a modular grid of 1200mm x 600mm. Additional cross tees of 600mm shall be placed perpendicular to the cross tee 1200mm long to finally form a grid of 600mm x 600mm. Grid of module size 600mmx600mm shall be supported by 3mm dia GI wire from purlins/soffit. 6mm thick High-pressure steam cured non-asbestos fibre cement designer ceiling board density>1299 kg/m ³ , Modulus of rupture - 15.85 Mpa, Thermal conductivity - 0.0872 W/mK of size 595mm x 595mm confirming to IS 14862 and Type B category III of ISO 8336:1993, reaction to fire A2s1d0 tested as per EN13501 Part I and BS 476 part 4,5,6&7 should be placed in the Grid module to form a false ceiling. All complete as per drawing and directions of Engineer-in-Charge	1 Sqm	1622
463	TBSC-K.I-43	Providing & Fixing of Armstrong Mineral Fibre Acoustical Suspended Ceiling System with 16mm thick Bioguard plain Bevelled Tegular Edge Tiles with Armstrong Superfine 15mm face exposed grid.	1 Sqm	1339

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		The tiles shall have smooth bright visual with Humidity Resistance (RH) of 99%, NRC 0.15 (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) as per ASTM C423 standard, CAC of 35db as per ASTM E1414, Light Reflectance $\geq 89\%$ as per ASTM E-1477, Thermal Conductivity $k = 0.052 - 0.057 \text{ W/mK}$, Colour Global White, Fire Performance of Class 0/1 as per BS 476 Part6/7 and Class A as per ASTM E 84 with 16mm bevelled tegular edge and 8mm drop in module size of 600 x 600mm. The scrim on the face of the tile shall be cleanable, washable up to 150 cycles as per ASTM D-4828 and resistant to disinfectants. The tile shall be treated with Anti-Microbial coating on the face and wax coating on the back to resist permeability. Tiles to be tested for antimicrobial activity having “total inhibition” as per TNO Seed Layer test & “inhibition” as per Kirby Bauer agar diffusion test (excluding Pseudomonas Aeruginosa) and efficacy greater than 2 as per JIS-Z 2801-2010. It shall be suitable for Green Building application, with Recycled content of 37%. The tile shall have certifications from GRIHA and GreenPro thereby confirming that it is an environment friendly product. SUSPENSION: The tile shall be laid on Armstrong Superfine 32 with 15 mm wide T - section flanges colour global white (matching to tile colour) having roll formed double stroke rotary stitching on all T sections i.e., the Main Runner, 1200 mm & 600 mm Cross Tees with a web height of 32mm (all sections). The deflection loading of the system shall be 10.5 kg/m² (as per standard installation layout mentioned below) and main beam tested as per ASTM C635 (Deflection limit less than $L/360$) with a deflection loading of 8.8 kg/m. The end details of the cross tee shall be made of pre hardened steel and fixed to the ends of the cross tee to provide double locking between “cross tee to cross tee” and “cross tee to main beam”. All main beam to main beam and cross tee to cross tee connection shall have a pull-out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 90 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending capability. All border cross tee/main beam shall be levelled using perimeter fill. The Tile & Grid system used together shall carry a 30-year warranty against manufacturing defect and manufacturer shall provide a warranty certificate. The Tile & Grid shall have the manufacturers name embossed/printed on it. The supply shall be backed by a Manufacturing Test		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Certificate. INSTALLATION: To comprise main runner spaced at 1200mm securely fixed to the structural soffit using Armstrong suspension system (specifications above) at 1200mm maximum. The First/Last Armstrong suspension system at the end of each main runner shall not be greater than 450mm from the adjacent wall along with the first and the last main beam shall be at less than 600mm from the wall. Flush fitting 1200mm long cross tees to be interlocked between main runners at 600mm to form 1200 x 600 mm module. Cut cross tees longer than 600mm require independent support. 600 x 600mm module to be formed by fitting 600mm long flush fitting cross tees centrally between the 1200 mm cross tees. Perimeter trim to be Armstrong wall angles of size 3000x19x19mm, secured to walls using screws at 450mm centre to centre maximum. Installation shall be carried out as per Armstrong recommended procedure. SUSPENSION SYSTEM accessories consisting of M6 Anchor Fasteners with hanger hole, pre-straightened hanger wire of dia - 2.5 mm of 1.80 m length having a tensile strength of 344-413 MPa and a minimum loading strength of 110 kgs.		
464	TBSC-K.I-44	Providing & Fixing horizontal level suspended ceiling comprising of Armstrong GI Bioguard Clip-in Plain Tile 600x600mm (Nominal Size) tiles of 120 gsm galvanized steel as per IS 277 (2003) suitable for architectural finishes in 0.5mm thickness as per in IS:513 (1994) in Global white colour with concealed suspension system having a bevelled edge of 3x3mm and height of 33mm on one side and 18mm on the other side. Tiles shall be flattened by precision leveller to minimize sag to less than 1/400mm. The tiles shall have double round pip of ϕ 2mm and ϕ 6mm for secure engagement and levelling respectively, along with swing down feature and special tabs to allow removal of tile to enable plenum access. The coated surface of the tile shall exhibit anti-microbial properties (eradication and inhibition of growth) and shall achieve up to 99.99% reduction in bacterial activity as per ISO22196:2011 when tested for organisms: Escherichia Coli, Bacillus Subtilis, Pseudomonas Aeruginosa, Clostridium Perfringens, Enterococcus Faecalis, Staphylococcus Aureus, Salmonella Enterica, Streptococcus Faecalis and MRSA. The coated surface of the tile shall also exhibit fungal resistance properties and shall achieve a "Rating 0" (No fungal growth observed) as per ASTM G-21 when tested for Aspergillus Brasiliense's, Penicillium Pinophilum and Candida Albicans. The tile shall be electrostatically	1 Sqm	1998

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		polyester powder coated using RoHS compliant powder having coating thickness ranging from 60-80 microns. The powder coating shall pass Salt Spray Test for 750 Hours as per ASTM B117, QUV - A Test for 1000hours as per ASTM G-154 - (Cycle - 1) and Humidity test for 1000hours as per DIN 50017. The powder coating shall have an adhesion of GT0 as per EN ISO 2409. The shade variation across batches shall be delta E<1 using Excite/BYK Gardner instrument and gloss level of 25±5% at 60° as per ASTM D523. The tile shall have scratch, mar & abrasive resistance properties. The tile shall have a Light Reflectance of ≥ 63% in accordance to ASTM 1477-98 and Fire Performance of class 0/1 as per BS 476 Part 6 & 7 in module size of 600x600mm.		
		SUSPENSION & INSTALLATION: Shall comprise of 3000mm long 'C' channels of 38H x 12W mm and 1mm thick spaced at 1200mm centre to centre securely fixed to the structural soffit using threaded rod (Approved make/Third Party Supply) connecting to C-channel hanger of 109x18.5x16.5mm at 1200mm C/C and anchor fastener (Approved make/Third Party Supply). The last hanger at the end of each C-channel shall not be greater than 600mm from the adjacent wall. Use a C-channel connector of 99.5x35x 9mm for splicing together two pieces of C-channels. 4000mm DP-12 main carriers (Clip-in bar) of 16W x 40H mm and 0.6mm thick made of galvanized steel of 140gsm as IS 277 (2003) and shall be spaced at 600mm centre to centre in a direction perpendicular to the C-channels and secured at every intersection with C-channel using a DP-12 hanger (Clip-in bar hanger) of 54x18x20mm. Use DP-12 connector (Clip-in bar connector) to splice two pieces of DP-12 main carriers (Clip-in bar). Tiles shall be clipped in between two DP-12 carriers (Clip-in bars) from below. Optionally - Security clip to be installed to ensure the panels are positively engaged with DP12 channel (Clip-in bar channel). Installation shall be carried out as per Armstrong recommended procedure.		
		Perimeter to be finished using Armstrong wall angles of size 3000x19x32mm in white colour secured to walls using screws at 450mm centre to centre. Cut tiles to be secured to the wall angles using a spring clamp.		
		The Tile & Grid system used together shall carry a 10-year warranty against manufacturing defect and manufacturer shall provide a warranty certificate. The Tile & Grid shall have the manufacturers name embossed/printed on it. The supply shall be backed by a Manufacturing Test Certificate.		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
465	TBSC-K.I-45	Providing and fixing Knauf Hera design Superfine, 1 layer magnesite bonded wood wool acoustic panel, 1mm thick fibre, exquisite surface structure, building biology recommended, size 600 x 600 x 25mm, having edge detail SK-06, weight 11.30Kg/Sqm, fire protection class B-s1,d0 as per EN 13501-1 & Humidity Resistance of 95%. Thickness Tolerance T2 (± 1 mm) according to EN 13168. Wood wool panels to be PEFC certified & should bear the Forest Stewardship Council Seal confirming that the wood used originates from responsibly managed forests. The wood wool panels to be laid in true horizontal level suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanized @ 90 gsm/sqm) consisting of Main "Tee", size 24W x 38H x 3600L mm made from 0.30 mm thick sheet spaced at 600mm centre to centre and Cross "Tee", size 24W x 28H x 600L mm made of 0.30 mm thick sheet to be interlocked between the main T runners at the distance of 600mm centre to centre to create 600x600mm module to lay ceiling tiles of approved surface pattern in the grid including, wherever required, cutting / making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. The perimeter trims to be of 22W x 19H x 3000L mm and 0.50 mm thick. Main "Tees" to be suspended from ceiling using 6mm dia and 50mm long anchor fasteners, Knauf SoH suspension hangers consisting of 4mm GI adjustable rods with galvanized level clips spaced at 900mm centre to centre along the Main Tee. The 4.00mm GI rods should be in accordance to IS 280:2006 and should have a zinc coating of not less than 90 gsm in accordance with IS 4826:1986 and a tensile strength of 300-550 MPa in accordance to IS 1608:2005. The first suspension from the perimeter trim should not exceed 300mm. The bottom exposed width of ~ 24mm of all T-sections shall be pre-painted with polyester paint. The wood wool board should be backed by 40mm thick rock wool slabs packed in 600 x 600 polythene bags having a gross density of 50kg/m³. The finished face of wood wool panels must be installed at 300mm from the soffit to achieve an NRC of 0.90 as per ASTM C423. Panels can be spray painted on site under supervision of manufacturer. SUSPENSION: The tile shall be laid on Armstrong Prelude 38 with 24 mm wide T - section flanges colour global white (matching to tile colour) having roll formed double stroke rotary stitching on all T sections i.e., the Main Runner, 1200 mm & 600 mm Cross Tees with a web height of 38mm (all sections). The deflection loading of the	1 Sqm	3432

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		system shall be 15 kg/m² (as per standard installation layout mentioned below) and main beam tested as per ASTM C635 (Deflection limit less than L/360) with a deflection loading of 18kg/m. The end details of the cross tee shall be made of pre hardened steel and fixed to the ends of the cross tee to provide double locking between “cross tee to cross tee” and “cross tee to main beam”. All main beam to main beam and cross tee to cross tee connection shall have a pull-out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 90 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending capability. INSTALLATION: To comprise main runner spaced at 1200mm securely fixed to the structural soffit using Armstrong suspension system (specifications above) at 1200mm maximum. The First/Last Armstrong suspension system at the end of each main runner shall not be greater than 450mm from the adjacent wall along with the first and the last main beam shall be at less than 600mm from the wall. Flush fitting 1200mm long cross tees to be interlocked between main runners at 600mm to form 1200 x 600 mm module. Cut cross tees longer than 600mm require independent support. 600 x 600mm module to be formed by fitting 600mm long flush fitting cross tees centrally between the 1200 mm cross tees. Perimeter trim to be Armstrong wall angles of size 3000x19x19mm, secured to walls using screws at 450mm centre to centre maximum. Installation shall be carried out as per Armstrong recommended procedure. ARMSTRONG SUSPENSION SYSTEM accessories supplied by Armstrong consisting of M6 Anchor Fasteners with hanger hole, pre-straightened hanger wire of dia - 2.5 mm of 1.80 m length having a tensile strength of 344-413 MPa and a minimum loading strength of 110 kgs.		
466	TBSC-K.I-46	Providing and fixing Knauf Hera design Superfine, 1 layer magnesite bonded wood wool acoustic panel, 1mm thick fibre, exquisite surface structure, building biology recommended, size 600 x 600 x 15mm, having edge detail SK-04, weight 11.3 Kg/Sqm, fire protection class B-s1,d0 as per EN 13501-1 & Humidity Resistance of 95%. Thickness Tolerance T2 (± 1 mm) according to EN 13168. Wood wool panels to be PEFC certified & should bear the Forest Stewardship Council Seal confirming that the wood used originates from responsibly managed forests. The wood wool panels to be laid in true horizontal level suspended on inter locking metal grid of hot	1 Sqm	3609

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		dipped galvanised steel sections (galvanized @ 90 gsm/sqm) consisting of Main "Tee", size 24W x 38H x 3600L mm made from 0.30 mm thick sheet spaced at 600mm centre to centre and Cross "Tee", size 24W x 28H x 600L mm made of 0.30 mm thick sheet to be interlocked between the main T runners at the distance of 1200mm centre to centre to create 1200x600mm module to lay ceiling tiles of approved surface pattern in the grid including, wherever required, cutting / making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. The perimeter trims to be of 22W x 19H x 3000L mm and 0.50 mm thick. Main "Tees" to be suspended from ceiling using 6mm dia and 50mm long anchor fasteners, Knauf SoH suspension hangers consisting of 4mm GI adjustable rods with galvanized level clips spaced at 900mm centre to centre along the Main Tee. The 4.00mm GI rods should be in accordance to IS 280:2006 and should have a zinc coating of not less than 90 gsm in accordance with IS 4826:1986 and a tensile strength of 300-550 MPa in accordance to IS 1608:2005. The first suspension from the perimeter trim should not exceed 300mm. The bottom exposed width of ~24mm of all T-sections shall be pre-painted with polyester paint. The wood wool board should be backed by 40mm thick rock wool slabs packed in 600 x 600 polythene bags having a gross density of 50kg/m³. The finished face of wood wool panels must be installed at 300mm from the soffit to achieve an NRC of 0.90 as per ASTM C423. Panels can be spray painted on site under supervision of manufacturer. SUSPENSION: The tile shall be laid on Armstrong Prelude 38 with 24 mm wide T - section flanges colour global white (matching to tile colour) having roll formed double stroke rotary stitching on all T sections i.e., the Main Runner, 1200 mm & 600 mm Cross Tees with a web height of 38mm (all sections). The deflection loading of the system shall be 15 kg/m² (as per standard installation layout mentioned below) and main beam tested as per ASTM C635 (Deflection limit less than L/360) with a deflection loading of 18kg/m. The end details of the cross tee shall be made of pre hardened steel and fixed to the ends of the cross tee to provide double locking between "cross tee to cross tee" and "cross tee to main beam". All main beam to main beam and cross tee to cross tee connection shall have a pull-out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 90 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		bending capability. INSTALLATION: To comprise main runner spaced at 1200mm securely fixed to the structural soffit using Armstrong suspension system (specifications above) at 1200mm maximum. The First/Last Armstrong suspension system at the end of each main runner shall not be greater than 450mm from the adjacent wall along with the first and the last main beam shall be at less than 600mm from the wall. Flush fitting 1200mm long cross tees to be interlocked between main runners at 600mm to form 1200 x 600 mm module. Cut cross tees longer than 600mm require independent support. 600 x 600mm module to be formed by fitting 600mm long flush fitting cross tees centrally between the 1200 mm cross tees. Perimeter trim to be Armstrong wall angles of size 3000x19x19mm, secured to walls using screws at 450mm centre to centre maximum. Installation shall be carried out as per Armstrong recommended procedure. ARMSTRONG SUSPENSION SYSTEM accessories supplied by Armstrong consisting of M6 Anchor Fasteners with hanger hole, pre-straightened hanger wire of dia - 2.5 mm of 1.80 m length having a tensile strength of 344-413 MPa and a minimum loading strength of 110 kgs.		
467	TBSC-K.I-47	Supply of Moisture Resistant Gypsum Board of 12.5 mm thickness with < 5% Total Water Absorption and < 180 g/m ² Surface Water Absorption	1 Sqm	450
468	TBSC-K.I-48	Supply and installation of Clip-in false ceiling system using GI Metal perforated panels powder coated 60 microns (Size: 600 x 600 x 0.5mm) of approved shade. The panels must conform to ASTM E84 & BS 476 part 7 (for surface burning characteristics), BS 8290-2 (for dimensional tolerance), Clip-in frame system shall consist of intermediate C Channels (3000mm) and a clip-in profile (3000mm), Clip holders using clips and clip-in wall angles (20x30x3000), C channel connectors and holders, clip-in connectors, G.I M6 threaded rods (mechanically anchored to the RCC Slab), G.I M6 washers & nuts. Clip-in false ceiling system shall be installed using ASTM C636 standards. Includes cost and conveyance of materials like G.I metal panels, required sections for clip-in framework systems, clips, screws, washer & nuts, labour charges, lift charges, stage scaffolding charges, all incidentals, as per the instruction of the Engineer-in-charge.	1 Sqm	7500
469	TBSC-K.I-49	Supply and Fixing of unperforated Aluminium false ceiling of size 300mm wide x 30mm deep x 0.7 mm thick with bevel edges of approved design & colour. Panels shall be clipped to a	1 Sqm	7200

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		baked aluminium carrier of 41.5mm wide x 62mm deep x 0.95mm thick in standard length of 5 meters, made of double baked black enamelled aluminium alloy AA 5050 (Al. Mg), the panel carrier shall be suspended by means of 6mm threaded rod which is mechanically anchored to the RCC Slab. Aluminium wall angles shall be provided at the edges of the false ceiling. The Aluminium panels shall be chromatised for the maximum bond between metal and pain enamel twice under high temperature, one side with a complete primer and finish coat, the inner side with a primer coating and skin coat on a continuous paint line. Including the cost of conveyance of all materials like false ceiling panels, materials for false ceiling framework system, consumables, lift charges, scaffolding charges, incidentals, as per the instructions of the Engineer-in-charge		
II	SUB-SECTION	FALSE CEILINGs - SECTIONS & ACCESSORIES		
470	TBSC-K.II-01	G.I. Ceiling Angle - 25 mm x 10 mm x 0.55 mm	1 RM	79
471	TBSC-K.II-02	G.I. Ceiling Section 51.5 mm x 26 mm x 10.5 mm x 0.55 mm thick	1 RM	92
472	TBSC-K.II-03	G.I. intermediate Section 45 mm x 15 mm x 15 mm x 0.9 mm	1 RM	91
473	TBSC-K.II-04	G.I. Perimeter Channel - 20 mm x 27 mm x 30 mm (web) of 0.55 mm thick	1 RM	79
474	TBSC-K.II-05	G.I.-Precoated Fine line Grid 25 mm x 25 mm x 0.7 mm	1 RM	45
475	TBSC-K.II-06	G.I.-Precoated Fine line Grid 15 mm x 25 mm x 0.7 mm	1 RM	41
476	TBSC-K.II-07	GI - Precoated - T-Sec- 24 mm x 38 mm x 0.7 mm thick	1 RM	60
477	TBSC-K.II-08	Hot dipped GI Angle - Precoated - Grid: 19 mm x 19 mm	1 RM	44
478	TBSC-K.II-09	Polyester painted GI - T Section - 24 x 32 mm	1 RM	54
479	TBSC-K.II-10	Polyester painted GI - T Section - 24 x 25 mm	1 RM	49
480	TBSC-K.II-11	Polyester painted GI - T Section - 24 mm x 27 mm	1 RM	50
481	TBSC-K.II-12	Aluminium Angle : 24 mm x 24 mm	1 RM	31
482	TBSC-K.II-13	Anodized Aluminium T Section : 24 x 24.5 x 2.4 mm	1 RM	38
483	TBSC-K.II-14	Connecting Clips	1 Each	6
484	TBSC-K.II-15	Rawl Plug	1 Each	6
485	TBSC-K.II-16	6 mm Nylon Rawl Plug	1 Each	6
486	TBSC-K.II-17	Soffit Cleats	1 Each	6
487	TBSC-K.II-18	Drywall Screws - 25 mm	1 Each	6
488	TBSC-K.II-19	Jointing Compound	1 Kgs	33
489	TBSC-K.II-20	Jointing Paper Tape	1 RM	8
490	TBSC-K.II-21	Drywall Topcoat	1 Lit	151
491	TBSC-K.II-22	Universal Holding Clips	1 Each	6
492	TBSC-K.II-23	4 mm Diameter GI Connecting Rod	1 RM	14
493	TBSC-K.II-24	2 mm Diameter GI Connecting Rod	1 RM	13
III	SUB-SECTION	WALL LINING & PANELLING		
494	TBSC-K.III-01	Providing wooden panelling 12 mm thick prelaminate particle board fixed on wooden	1 Sqm	1938

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		frame of BT wood size 50.8 mm x 25.4 mm (2"x1") at distance of 609.6mm (2'-0") intervals of both ways providing 3/4" x 1/2" (19.05 mm x 12.7 mm) size BT wood ornamental cover beading and necessary screws, synthetic glue complete for finished item of work.		
495	TBSC-K.III-02	Providing and fixing perforated wall panels channelled wood works panels/ sheets of width 192 mm, thickness of 15 mm and length 2400 mm made of a moisture resistant fibre board substrate with a laminated facing as per the approved shade/ species & finish and a melamine balancing layer on the reverse side, with a special perforation pattern of helm holtz fluted perforation with consecutive 3 mm wide grooves followed by 21 mm of visible surface with edges of panel shall be tongue and groove fitting to fix special clips for installation and seamless finish, the back of the panel shall have hot pressed acoustic fleece to absorb noise/ sound absorbing to achieve NRC of 0.5 as per ASTM C423 and humidity resistance with minimum sag resistance of RH70, and a fire rating class of 2 as per Part 7 of BS 476	1 Sqm	3741
496	TBSC-K.III-03	Supply and fixing of wall lining fixing to GI channels of perimeter channel 30mm x 27mm x 0.55 thick and ceiling channels of 51.1mm x 26mm x 10.5mm x 0.55mm thick and fixing and finishing using joint compound and glass fibre tape complete finish as per specification without painting for finished item of work: using 8mmthick Calcium silicate boards	1 Sqm	820
497	TBSC-K.III-04	Supply and fixing of wall lining fixing to GI channels of perimeter channel 30mm x 27mm x 0.55 thick and ceiling channels of 51.1mm x 26mm x 10.5mm x 0.55mm thick and fixing and finishing using joint compound and glass fibre tape complete finish as per specification without painting for finished item of work: Using 10mm thick Calcium silicate boards	1 Sqm	903
498	TBSC-K.III-05	Supply and fixing of wall lining fixing to GI channels of perimeter channel 30mm x 27mm x 0.55 thick and ceiling channels of 51.1mm x 26mm x 10.5mm x 0.55mm thick and fixing and finishing using joint compound and glass fibre tape complete finish as per specification without painting for finished item of work: Using 12mm thick Calcium silicate boards	1 Sqm	985
499	TBSC-K.III-06	Supply and fixing of cement board (conforming to IS:14862:2000) wall panelling with framework made of GI stud profile of size 48 x 40 x 10 x 0.55 mm thick placed at every 610 mm C/C intervals fixed vertically in between floor and roof 'U' track of size 50 x 30 x 0.6 mm thick duly fixed with self-expansion screws and fixing with self-tapping self-embedding screws fixed at every 300	1 Sqm	987

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		mm (centres) leaving a 3 mm gap between two panels of width 2'-0". The Gap will be covered with a decorative beading. Surface will be given a smooth finish over a coat of primer. - With 8 mm Cement Bonded Board		
500	TBSC-K.III-07	Supply and fixing of cement board (conforming to IS:14862:2000) wall panelling with framework made of GI stud profile of size 48 x 40 x 10 x 0.55 mm thick placed at every 610 mm C/C intervals fixed vertically in between floor and roof 'U' track of size 50 x 30 x 0.6 mm thick duly fixed with self-expansion screws and fixing with self-tapping self-embedding screws fixed at every 300 mm (centres) leaving a 3 mm gap between two panels of width 2'-0". The Gap will be covered with a decorative beading. Surface will be given a smooth finish over a coat of primer. - With 10 mm Cement Bonded Board	1 Sqm	1136
501	TBSC-K.III-08	Supply and fixing Cement Bonded Particle Board conforming to IS 14276 wall panelling using 10 mm Cement Bonded Particle Board conforming to IS 14276 with framework made of GI stud section of size 48mm x 35mm x 0.55mm thick placed at every 610 mm C/C intervals vertically and at 1200mm internals horizontally fixed to the wall by means of self-expansion screws and caps and Cement Bonded Particle Board conforming to IS 14276 is to be fixed to frame by means of self-taping screws placed at every 300 mm intervals leaving 3mm gap between two panels. The cost inclusive of one coat of synthetic plastered primer and two coats of synthetic smooth finished putty and cost & conveyance of all materials, labour charges etc. complete as per the direction of Engineer in charge.	1 Sqm	1697
502	TBSC-K.III-09	Supply and fixing of Cement Bonded Pre-laminated Particle Board wall panelling using 12 mm Cement Bonded Pre-laminated Particle with framework made of G.I stud section of size 48mm x 35mm x 0.55mm thick placed at every 610mm intervals vertically and at 1200mm internals horizontally fixed to the wall by means of self-expansion screws and caps. Cement Bonded Pre-laminated Particle is to be fixed to frame by means of self-taping screws placed at every 300mm intervals leaving 3mm gap between two panels. The cost inclusive of Conveyance of materials, Labour charges etc., complete as per the direction of Engineer in charge	1 Sqm	2500
503	TBSC-K.III-10	Providing and fixing plain PVC rigid foam sheet wall panelling of thickness 5mm consisting of panels having size 1220mm X2440mm stuck on inner framework of 25mm wide strips of 5mm thick PVC rigid foam sheet. The strips should have in their centre a groove of 6mm width and 2mm depth for sinking the head of the screw	1 Sqm	2223

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		used to fix the strips to the wall and should be placed vertically at equal intervals of 405/407mm centre to centre. The PVC strips shall be fixed to the wall using 65mm long M.S. screws through the groove in the strip by using PVC fasteners. The distance between two screws shall not be more than 300mm. a groove of 2mm may be left at the joint of two panels for aesthetic looks. This framework is done for making existing wall surface in ensured level and for sticking the wall panelling sheet (panel) on it. The exact size of the panel and correspondingly of the grid May be varied depending on the size of the wall. However, it must ensure that a strips of 5mm thick PVC sheet of width 75mm feathered at the edges shall be stuck at the places where two panels are joined, using solvent cement. , complete as per direction of Engineer-in-Charge, manufacture's specification & drawing		
504	TBSC-K.III-11	Providing and fixing INSULATED PVC WALL panelling shall consist of PVC insulated panels having wall thickness of 1mm /1.5mm/2mm PVC sheet and the desired thickness of EPS (dependent on the insulation required) screwed into the wall using screws of adequate length. The screws shall be placed at 150mm and shall be 25mm from the edge of the insulated panel on all from sides of the panel. The PVC strips of 5mm thick PVC sheet of width 75mm feathered at the edges shall be stuck using solvent cement adhesive at the places where two panels are joined, to cover the screw of both the panels, using solvent cement. 90 heat bent strips of 5mm thick PVC sheets of width 75mm X75mm feathered at the edges shall be stuck at wall joints / pillars etc. , complete as per direction of Engineer-in-Charge, manufacture's specification & drawing	1 Sqm	2340
505	TBSC-K.III-12	Supply and fixing of wall panelling on the framework of wooded rippers of 24 X 24mm of required size. The entire framework shall be panelled with PVC section having overall dimensions of 6 X 250mm with a wall thickness of 1mm $\pm$ 0.3mm. The panels are joined with tongue and groove system. Necessary cut-outs for electrical connections to be provided at required places complete, for finished item of work.	1 Sqm	1520
506	TBSC-K.III-13	Providing and fixing wall panelling with 8mm thick high pressure steam cured non asbestos fibre cement siding planks Density >1200 kg/m ³ , Modulus of rupture 15.85 Mpa, Thermal conductivity .0872 W/mK confirming to IS 14862:2000 and Type B category III of ISO 8336:1993, reaction to fire A2S1d0 tested as per EN13501 Part I and BS 476 Part 4,5,6,7 fixed on	1 Sqm	2607

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		the supporting W profile/Aluminium tube or iron tube with the helo of full threaded flat head screw 0.70 mm thick having a knurled web of 51.55mm and two flanges of 26mm each with lips of 10.55mm placed at 407/1220mm c/c vertically and a perimeter channel having one flange of 20mm and another flange of 30mm with thickness of 0.70mm and web of length 27mm is fixed on the floor and the ceiling with the nylon sleeves @ 300mm c/c with expandable fasteners. Board is fixed to the W profile with 35mm long self-embedding type screws @ 300mm c/c all complete as per the drawing and directions of Engineer-in-Charge. The boards maybe finished to have a uniform gap/groove or overlapping system. The groove shall be filled up with clear PU sealant. Finally exterior surface of the boards to be painted with PU paint of approved shade/make		
507	TBSC-K.III-14	Providing and fixing wall panelling with 8mm thick high pressure steam cured non asbestos fibre cement artwood Fibre cement pre coloured siding planks Density >1200 kg/m ³ , Modulus of rupture 15.85 Mpa, Thermal conductivity .0872 W/mK confirming to IS 14862:2000 and Type B category III of ISO 8336:1993, reaction to fire A2S1d0 tested as per EN13501 Part I and BS 476 Part 4,5,6,7 fixed on the supporting W profile/Aluminium tube or iron tube with the helo of full threaded flat head screw 0.70 mm thick having a knurled web of 51.55mm and two flanges of 26mm each with lips of 10.55mm placed at 407/1220mm c/c vertically and a perimeter channel having one flange of 20mm and another flange of 30mm with thickness of 0.70mm and web of length 27mm is fixed on the floor and the ceiling with the nylon sleeves @ 300mm c/c with expandable fasteners. Board is fixed to the W profile with 35mm long self-embedding type screws @ 300mm c/c all complete as per the drawing and directions of Engineer-in-Charge. The boards maybe finished to have a uniform gap/groove or overlapping system. The groove shall be filled up with clear PU sealant. Finally exterior surface of the boards to be painted with PU paint of approved shade/make	1 Sqm	2262
508	TBSC-K.III-15	Providing and fixing wall panelling with 9mm thick high pressure steam cured non asbestos fibre cement stone board Density >1200 kg/m ³ , Modulus of rupture 15.85 Mpa, Thermal conductivity .0872 W/mK confirming to IS 14862:2000 and Type B category III of ISO 8336:1993, reaction to fire A2S1d0 tested as per EN13501 Part I and BS 476 Part 4,5,6,7 fixed on the supporting W profile/Aluminium tube or iron	1 Sqm	2771

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		tube with the helo of full threaded flat head screw 0.70 mm thick having a knurled web of 51.55mm and two flanges of 26mm each with lips of 10.55mm placed at 620/1220mm c/c vertically and a perimeter channel having one flange of 20mm and another flange of 30mm with thickness of 0.70mm and web of length 27mm is fixed on the floor and the ceiling with the nylon sleeves @ 300mm c/c with expandable fasteners. Board is fixed to the W profile with 35mm long self-embedding type screws @ 300mm c/c all complete as per the drawing and directions of Engineer-in-Charge. The boards maybe finished to have a uniform gap/groove or overlapping system. The groove shall be filled up with clear PU sealant. Finally exterior surface of the boards to be painted with PU paint of approved shade/make		
509	TBSC-K.III-16	Providing and fixing wall panelling with 9mm thick high pressure steam cured non asbestos fibre cement heavy duty board Density >1200 kg/m ³ , Modulus of rupture 15.85 Mpa, Thermal conductivity .0872 W/mK confirming to IS 14862:2000 and Type B category III of ISO 8336:1993, reaction to fire A2S1d0 tested as per EN13501 Part I and BS 476 Part 4,5,6,7 fixed on the supporting W profile/Aluminium tube or iron tube with the helo of full threaded flat head screw 0.70 mm thick having a knurled web of 51.55mm and two flanges of 26mm each with lips of 10.55mm placed at 407/1220mm c/c vertically and a perimeter channel having one flange of 20mm and another flange of 30mm with thickness of 0.70mm and web of length 27mm is fixed on the floor and the ceiling with the nylon sleeves @ 300mm c/c with expandable fasteners. Board is fixed to the W profile with 35mm long self-embedding type screws @ 300mm c/c all complete as per the drawing and directions of Engineer-in-Charge. The boards maybe finished to have a uniform gap/groove or overlapping system. The groove shall be filled up with clear PU sealant. Finally exterior surface of the boards to be painted with PU paint of approved shade/make	1 Sqm	2215
510	TBSC-K.III-17	Providing and Fixing of Armstrong Optra Acoustical Wall Panel with square edges made of fibre glass substrate 25mm thick, wrapped on the front side with an acoustically transparent fabric as per the approved shade (Husk, Copper, Sangria, Sesame, Coffee, Charcoal, Titanium, Flame, Peanut and Shell). The panel shall be classified for Fire Class A, as per ASTM E-84. The Acoustical Wall Panel shall be of sizes 600x600mm (Nominal) or 600x1200mm (Nominal) and shall achieve an NRC of 0.85 (Average value	1 Sqm	5118

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) with 50mm airgap as per ASTM C423 to be fixed to wall on a framework of wooden battens and using Wall panel Impaler's (supplied by the manufacturer) or by using construction adhesives (as per the instructions laid down by the manufacturer). The fibre glass substrate shall have a recycle content of 85%.		
		INSTALLATION: An appropriate vapour barrier (by others) shall be applied/installed on the vertical surface before the installation to properly seal against entry of any moisture. Vapour barrier (by others) shall be installed as per Manufacturer's recommendation. Install wooden batten grid (provided by others) of section 50x50mm or as approved by the Architect on the solid wall/partition to provide level and plumb surface. The Impaler's shall be fixed to the battens using self-tapping screws, 3 nos. in case of 600x600mm and 4 nos. in case of 600x1200mm. Silica based construction adhesive (by others) to be dabbed on to the projecting elements (spikes) of the Impaler's. Armstrong Optra Wall Panels shall be pierced through the spikes of the Impaler's ensuring the line and level of the panels are maintained.		
IV	SUB-SECTION	PARTITIONS		
511	TBSC-K.IV-01	Supply & fixing 75mm thick metal stud partition using 12.5 mm thick Gypboard conforming to IS 2095-1982 screw fixed to either side to 48 mm studs of 0.55 mm thick with the 50 mm floor and ceiling channel 0.55 mm and the joints duly finished with joint compound, paper tape and two coats Dry wall topcoat as per specification.	1 Sqm	1309
512	TBSC-K.IV-02	Supply and Fixing 66mm thick metal stud partition screw fixed to either side of 48mm studs of 0.55mm thick with 50mm floor and ceiling channel 0.55mm and the joints duly finished with joining compound, glass fibre tape and two coats dry wall topcoat as per specification finished Item of work- using 8mm thick Calcium silicate boards	1 Sqm	1383
513	TBSC-K.IV-03	Supply and Fixing 66mm thick metal stud partition screw fixed to either side of 48mm studs of 0.55mm thick with 50mm floor and ceiling channel 0.55mm and the joints duly finished with joining compound, glass fibre tape and two coats dry wall topcoat as per specification finished Item of work - Using 10mm thick Calcium silicate boards	1 Sqm	1548
514	TBSC-K.IV-04	Supply and Fixing 66mm thick metal stud partition screw fixed to either side of 48mm studs of 0.55mm thick with 50mm floor and ceiling channel 0.55mm and the joints duly finished with	1 Sqm	1711

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		joining compound, glass fibre tape and two coats dry wall topcoat as per specification finished Item of work - Using 12mm thick Calcium silicate boards		
515	TBSC-K.IV-05	Supply and Fixing 66mm thick metal stud partition using 2 layers of 12mm thick Calcium silicate boards screw fixed to either side to 48mm studs of 0.55mm thick with 50mm floor and ceiling channel 0.55mm. The boards joints are to be staggered to avoid through passage. Ceramic wool of 50mm thick, 64kg/m ³ density is to be placed in cavity of the partition. The joints duly finished with joining compound, glass fibre tape and two coats dry wall topcoat as per specification without painting for finished item of work	1 Sqm	4589
516	TBSC-K.IV-06	Supply and fixing double skin cement board (conforming to IS:14862:2000) partition with Framework made of GI stud profile of size 48 x 40 x 10 x 0.55 mm thick placed at every 610 mm C/C intervals and 1220 mm horizontal intervals duly fixed with self-expansion screws, the cement board of 8 mm thick cladded around with self-tapping self-embedding screws fixed at every 300 mm (centres) leaving 3 mm gap between two panels and the gap will be covered with decorative moulding surface will be given a smooth finish over cement primer. The rate is inclusive of cost and conveyance of all materials and labour charges etc. complete.	1 Sqm	1724
517	TBSC-K.IV-07	Providing and fixing of 50 mm thick SOLID WALL PANEL Sandwich panels made of light Weight FRACC two 5 mm thick non-asbestos fibre reinforced cement sheets (conforming to IS:14862:2000) on either side of the lightweight concrete core composed of Portland cement binders with tongue and groove arrangement. The bottom of the panel shall be fixed to the floor channel made up of 1 mm thick GI channels of size 28x52x31 mm fixed to the existing floor with 6x60mm nylon self-expansion screws at 600 mm C/C and top of the panel fixed with ceiling channel made from 0.8 mm thick GI Channel of size 31x52x31 mm duly fixed to the existing ceiling with 6x60mm nylon self-expansion screws at 600 mm C/C. All the tongue and groove joints of the panels must be properly cleaned, and both the panels must be fixed by applying the mixture of fly ash and sodium silicate in between and Everest jointing compound all the exposed joints. The rate includes cost of 50mm SOLID WALL PANELS, G.I. Floor and ceiling channel. The panels can be flushed by using paper tape and Everest jointing compound all complete	1 Sqm	1779
518	TBSC-K.IV-08	Providing and fixing of 75mm thick SOLID WALL PANEL Sandwich panels made of light Weight	1 Sqm	2122

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		FRACC two 5 mm thick non-asbestos fibre reinforced cement sheets (conforming to IS:14862:2000) on either side of the lightweight concrete core composed of Portland cement binders with tongue and groove arrangement. The bottom of the panel shall be fixed to the floor channel made up of 1 mm thick GI channels of size 28x77x31 mm fixed to the existing floor with 6x60mm nylon self-expansion screws at 600 mm C/C and top of the panel fixed with ceiling channel made from 0.80 mm thick GI Channel of size 31x77x31 mm duly fixed to the existing ceiling with 6x60mm nylon self-expansion screws at 600 mm C/C. All the tongue and groove joints of the panels must be properly cleaned, and both the panels must be fixed by applying the mixture of fly ash and sodium silicate in between and Everest jointing compound all the exposed joints. The rate includes cost of 75mm SOLID WALL PANEL panels, G.I. Floor and ceiling channel. The panels can be flushed by using paper tape and Everest jointing compound all complete.		
519	TBSC-K.IV-09	Supply & fixing of 50 mm thick partition with composite panel comprise of two 5mm thick Boards (asbestos-free fibre reinforced cement sheets conforming to IS 14862) strongly bonded with core material which is light weight concrete mix of Portland cement, expanded polystyrene bead aggregates and admixture. s with unique semi-circular Tongue & Groove Joining System provides better stability, rapid installation and better workability. The bottom of the panel shall be fixed to the floor channel made up of 1 mm thick GI channels of size 28x52x31 mm fixed to the existing floor with 6x60mm nylon self-expansion screws at 600 mm C/C and top of the panel fixed with ceiling channel made from 0.8 mm thick GI Channel of size 31 x 52 x 31 mm duly fixed to the existing ceiling with 6x60mm nylon self-expansion screws at 600 mm C/C. All the tongue and groove joints of the panels must be properly cleaned, and both the panels must be fixed by applying the jointing compound in all the exposed joints. The rate includes cost of 50mm S, G.I. Floor and ceiling Channel.	1 Sqm	1779
520	TBSC-K.IV-10	Supply & fixing of 75 mm thick partition with composite panel comprise of two 5mm thick Boards (asbestos-free fibre reinforced cement sheets conforming to IS 14862) strongly bonded with core material which is light weight concrete mix of Portland cement, expanded polystyrene bead aggregates and admixture. s with unique semi-circular Tongue & Groove Joining System provides better stability, rapid installation and better workability. The bottom of the panel shall be fixed to the floor channel made up of 1 mm	1 Sqm	2122

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		thick GI channels of size 28x77x31 mm fixed to the existing floor with 6x60mm nylon self-expansion screws at 600 mm C/C and top of the panel fixed with ceiling channel made from 0.8 mm thick GI Channel of size 31x77x31 mm duly fixed to the existing ceiling with 6x60mm nylon self-expansion screws at 600 mm C/C. All the tongue and groove joints of the panels must be properly cleaned, and both the panels must be fixed by applying the jointing compound in all the exposed joints. The rate includes cost of 75mm S, G.I. Floor and ceiling Channel.		
521	TBSC-K.IV-11	Supply and fixing double skin partition using with 10 mm Cement Bonded Particle Board conforming to IS 14276 made out of G.I. track section of size 50mmx 35mm x 0.55 mm for fixing to the roof and floor and stud section of size 48mm x 35mm x 0.55mm placed in track section vertically at 610mm intervals and at 1200mm intervals horizontally fixed to the wall by means of self-expansion screws and caps to the wall and roof the panel is to be fixed both sides of framework by using self-taping screws fixed at every 300mm intervals to the framework leaving 3 mm gap between two panels. The cost inclusive with one coat of synthetic primer and two coats of synthetic plaster smooth finish and cost and conveyance of all materials to site, labour charges etc., complete as per the direction of Engineer in charge.	1 Sqm	2594
522	TBSC-K.IV-12	Supply and fixing of Cement Bonded Prelaminated Particle Board double skin partition using with 10 mm Cement Bonded Prelaminated Particle Board made from G.I track section of size 50 mm x 35mm x 0.55mm for fixing to the roof and floor and stud section of size 48mm x 35mm x 0.55mm placed in track section vertically at 610mm intervals and at 1200mm intervals horizontally. The frame is fixed by means of self-expansion screws and caps to the wall / roof. Cement Bonded Prelaminated Particle Board is to be fixed both sides of the framework by using 2mm thick electro plated CR flat section leaving 3mm gap between two panels. The cost inclusive of cost and conveyance of all materials to sites, other materials incidentals and labour charges as per the direction of Engineer in charges.	1 Sqm	3573
523	TBSC-K.IV-13	Supply and fixing of Cement Bonded Prelaminated Particle Board aluminium glazed partitions using 10MM Cement Bonded Prelaminated Particle Board and 5.00 mm thick plain glass to full height. Using with Cement Bonded Prelaminated Particle Board to a height of 0.91 meter at bottom panel and remaining height with glass and aluminium sections anodized to 12 to 15 microns and of sections of	1 Sqm	4176

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		size 37mm x 62mm and 1.5mm thickness with one meter centre to centre duly fixed with clip beading on both sides including fixing the frame to pillars by M.S. flats, bolts and nuts including cost and conveyance of all materials etc., complete as directed during execution.		
524	TBSC-K.IV-14	Providing and fixing 50mm thick SEMI HEIGHT SOLID PVC PARTITION consisting of 49mm sandwich PVC panel made from 36mm high density expanded polystyrene sheet(E.P.S.-Thermocol) stuck on both side with 2mm thick plain/printed /prelam PVC rigid foam sheets reinforced with framework made from 35mmX5mm M.S. Angle. In between two M.S. Angles 5mm thick plain/printed/prelam heat moulded "" PVC 'C' channel of size 50X100mm with feathered edges shall be fixed on the floor & 50X75mm with feathered edges plain/printed /prelam PVC 'C' channel. In between adjoining EPS sandwiched PVC partitions panel 5mm thickX75mm width plain/printed/prelam PVC sheet feathered at edges shall be stuck on front & back face using solvent cement etc. in places where two partitions meet to form an 'L' shape the panels are joined 5mm thick plain/printed/prelam heat moulded "" PVC 'L' section of size 75mmX75mm with feathered edges shall be fixed on front & back side. This is done to maintain the symmetry of design. An additional 5mm thick PVC strip of 40mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive, complete as per direction of Engineer-in-Charge, manufacture's specification & drawing	1 Sqm	3158
525	TBSC-K.IV-15	Supply and fixing of PVC Double Skin Partition. The entire framework shall be carried out by mild steel section having overall dimensions of 24 X 48mm with a wall thickness of 1.2mm. The entire framework shall be concealed with PVC section having overall dimensions of 6 X 250mm with a wall thickness of 1mm ± 0.3mm both sides. Glass provision/Door provision can be provided along the partition wherever required. Partitions can be made full or half as per requirement complete, for finished item of work.	1 Sqm	2666
526	TBSC-K.IV-16	Supply and fixing double skin cement-based Board partition with Framework made of GI stud profile of size 48x40x 10x 0.6 mm thick placed at every 610 mm C/C intervals and 915 mm horizontal intervals duly fixed with self-expansion screws, the Cement Bonded Board of 8 mm thick clad around with self-tapping self-embedding screws fixed at every 300 mm (centres) leaving a 3 mm gap between two panels of width 2'-0"(610 mm). The Gap will be covered with a decorative moulding surface will be given a smooth finish	1 Sqm	1492

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		over cement primer. The rate Inclusive of cost and conveyance of all materials and labour charges etc., Complete. DOUBLE SKIN PARTITION		
527	TBSC-K.IV-17	Supply and fixing of partitions made of seccolor pre-painted steel (base steel as per IS 513 of 0.58 mm thick 'D' quality, galvanized as per IS 277 with Zinc of 120 GSM). Primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick alkyd backer. Section for outer frame should be 46x52mm, section for shutter should be 46x46mm, section for mullion should be 46x70mm, section for beading should be 18x25mm and section for middle and bottom rail (Lock Rail and Kick Rail) of size should be 23x130mm. The partition should be panelled with 9mm pre-laminated particle board to a height of 0.91m from the bottom, and remaining height with 5mm thick plain glass With Ethyl Propylene Diametermine Monomer (EPDM) Gaskets. The sections are to be cut to length; mitre joined with corner bracket Centre mullions are to be fixed using mullion cap. Gaskets made of Ethyl Propylene Diametermine Monomer (EPDM). Corner brackets made of CRCA with zinc phosphate. Mullion caps made of Glass filled nylon. The above frames should be fixed to the concrete/masonry wall by means of self-expanding screws, and complete for finished item of work Fixed Partition: Outer frame section size of 46x52mm, mullion section should be of 46x70mm, fixed beading should be of 18x25mm.	1 Sqm	5272
528	TBSC-K.IV-18	Supply and fixing of partitions made of seccolor pre-painted steel (base steel as per IS 513 of 0.58 mm thick 'D' quality, galvanized as per IS 277 with Zinc of 120 GSM). Primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick alkyd backer. Section for outer frame should be 46x52mm, section for shutter should be 46x46mm, section for mullion should be 46x70mm, section for beading should be 18x25mm and section for middle and bottom rail (Lock Rail and Kick Rail) of size should be 23x130mm. The partition should be panelled with 9mm pre-laminated particle board to a height of 0.91m from the bottom, and remaining height with 5mm thick plain glass With Ethyl Propylene Diametermine Monomer (EPDM) Gaskets. The sections are to be cut to length; mitre joined with corner bracket Centre mullions are to be fixed using mullion cap. Gaskets made of Ethyl Propylene Diametermine Monomer (EPDM). Corner brackets made of CRCA with zinc phosphate. Mullion caps made of Glass filled nylon. The above frames should be fixed to the	1 Sqm	6011

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		concrete/masonry wall by means of self-expanding screws, and complete for finished item of work Fixed Partition with Door: Outer frame section size of 46x52mm, mullion section should be of 46x70mm, fixed beading should be of 18x25mm, section for shutter should be of 46x46mm and section for middle & bottom should be of size 23x130mm		
529	TBSC-K.IV-19	Providing and fixing in position wall panelling to all heights with eco-friendly light weight calcium silicate panels/tiles globe design of size 595x595mm having square/butt edge having NRC i.e. Noise reduction coefficient of 0.5 to 0.75 as per IS 8225:1987, Light reflectance of 85% minimum, Non-combustible as per BS 476 part 4, fire performance as per BS 476 part 6&7, humidity resistance of 100% and thermal conductivity < 0.043 W/m K as per ASTM 518: 1991 comprising of a frame made from especially fabricated galvanized mild steel sheet 0.50mm thick pressed section galvanizing @ 120 grams per sqm including both sides i.e. vertical studs of size 48x34x36mma re placed at 600mm centre to centre in a floor and ceiling channel section of size 50x32mm fixed to the floor and soffit at 600mm centres using 12mm dia, 50mm long wedge type expanded zinc alloy dash fastener with 10mm bolt. Glass wool of 50mm thickness is then to be inserted in the slots and finally calcium silicate non-combustible panels/tiles are to be screw fixed with self-tapping pan head nickel coated mild steel screws of size 13x3.2mm on to this grid leaving an even groove of 1mm between the panels. The joints between the panels are to be duly jointed and finished using recommended jointing calcium silicate-based compound and fibre joint tape roll 50mm wide and two coats of primer suitable for panelling as per manufacturers specification as per direction of Engineer-in-Charge with 15mm thick integral densified fully perforated light weight calcium silicate panels/tiles	1 Sqm	2379
530	TBSC-K.IV-20	Providing and fixing in position 67mm thick partition using Galvalume wall frame system AZ 150, 300Mpa yield strength sections minimum 0.55mm thickness with 150gms/sqm coating of aluminium zinc as per IS 277/1992 max height 3m using 8mm thick High pressure steam cured Everest non asbestos fibre cement wall board density>1200 kg/m ³ , Modulus of rupture 15.85 Mpa, Thermal conductivity 0.0872 W/mK confirming IS 14862:2000 and Type B category III of ISO 8336:1993, Reaction to fire A2-s1-d0 tested as per EN13501 part I and BS 476 Part 4,5,6,7 on either side fixed on the framework with 25mm fully threaded self-tapping screws @ 300mm	1 Sqm	2899

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		centre to centre on either side of 51mm studs 0.55mm thick having one flange of 42mm and another flange of 44mm made of Galvalume wall frame placed at 610mm c/c in 51mm floor and ceiling channel 0.55mm thick having equal flanges of 32mm Galvalume steel. Boards are to be fixed horizontally in a staggered manner to avoid through joints on both sides. The boards maybe finished to have uniform gap/groove. Alternatively, uniform gap/grooves maybe covered with manufactured recommended jointing compound or expansion filler for jointless/seamless finish. All complete as per drawing and directions of Engineer-in-Charge		
531	TBSC-K.IV-21	Providing and fixing in position 69mm thick partition using Galvalume wall frame system AZ 150, 300Mpa yield strength sections minimum 0.55mm thickness with 150gms/sqm coating of aluminium zinc as per IS 277/1992 max height 3m using 9mm thick High pressure steam cured Everest non asbestos fibre cement wall board density>1200 kg/m ³ , Modulus of rupture 15.85 Mpa, Thermal conductivity 0.0872 W/mK confirming IS 14862:2000 and Type B category III of ISO 8336:1993, Reaction to fire A2-s1-d0 tested as per EN13501 part I and BS 476 Part 4,5,6,7 on either side fixed on the framework with 25mm fully threaded self-tapping screws @ 300mm centre to centre on either side of 51mm studs 0.55mm thick having one flange of 42mm and another flange of 44mm made of Galvalume wall frame placed at 610mm c/c in 51mm floor and ceiling channel 0.55mm thick having equal flanges of 32mm Galvalume steel. Boards are to be fixed horizontally in a staggered manner to avoid through joints on both sides. The boards maybe finished to have uniform gap/groove. Alternatively, uniform gap/grooves maybe covered with manufactured recommended jointing compound or expansion filler for jointless/seamless finish. All complete as per drawing and directions of Engineer-in-Charge	1 Sqm	3980
532	TBSC-K.IV-22	Providing and fixing in position 70 thick partition using Galvalume wall frame system AZ 150, 300Mpa yield strength sections minimum 0.55mm thickness with 150gms/sqm coating of aluminium zinc as per IS 277/1992 max height 3m using 9mm thick High pressure steam cured Everest non asbestos fibre cement heavy duty wall board density>1200 kg/m ³ , Modulus of rupture 24 Mpa, Thermal conductivity 0.0872 W/mK confirming IS 14862:2000 and Type B category III of ISO 8336:1993, Reaction to fire A2-s1-d0 tested as per EN13501 part I and BS 476 Part 4,5,6,7 on wet side and 10mm thick Fibre cement wall board density>1200 kg/m ³ , Modulus of rupture	1 Sqm	3658

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		15.85 Mpa, Thermal conductivity 0.0872 W/mK confirming IS 14862:2000 and Type B category III of ISO 8336:1993, Reaction to fire A2-s1-d0 tested as per EN13501 part I and BS 476 Part 4,5,6,7 on other side fixed on the framework with 25mm fully threaded self-tapping screws @ 300mm centre to centre on either side of 51mm studs 0.55mm thick having one flange of 42mm and another flange of 44mm made of Galvalume wall frame placed at 610mm c/c in 51mm floor and ceiling channel 0.55mm thick having equal flanges of 32mm Galvalume steel. Boards are to be fixed horizontally in a staggered manner to avoid through joints on both sides. The boards maybe finished to have uniform gap/groove. Alternatively, uniform gap/grooves maybe covered with manufactured recommended jointing compound or expansion filler for jointless/seamless finish. All complete as per drawing and directions of Engineer-in-Charge		
533	TBSC-K.IV-23	Providing and fixing in position 71mm thick partition using GI Sections minimum 0.55mm thickness with 180gms/sqm coating of aluminium zinc as per IS 277/1992 max height 3m using 10mm thick High pressure steam cured Everest non asbestos fibre cement wall board density>1200 kg/m ³ , Modulus of rupture 15.85 Mpa, Thermal conductivity 0.0872 W/mK confirming IS 14862:2000 and Type B category III of ISO 8336:1993, Reaction to fire A2-s1-d0 tested as per EN13501 part I and BS 476 Part 4,5,6,7 on either side fixed on the framework with 25mm fully threaded self-tapping screws @ 300mm centre to centre on either side of 51mm studs 0.55mm thick having one flange of 42mm and another flange of 44mm made of Galvalume wall frame placed at 610mm c/c in 51mm floor and ceiling channel 0.55mm thick having equal flanges of 32mm Galvalume steel. Boards are to be fixed horizontally in a staggered manner to avoid through joints on both sides. The boards maybe finished to have uniform gap/groove. Alternatively, uniform gap/grooves maybe covered with manufactured recommended jointing compound or expansion filler for jointless/seamless finish. All complete as per drawing and directions of Engineer-in-Charge	1 Sqm	3251
534	TBSC-K.IV-24	Providing and fixing in position 100mm thick drywall partition system which includes Galvalume wall frame system AZ 150, 300Mpa yield strength comprising of 51mm floor and ceiling track profile 0.5mm thick having two equal flanges of 32mm fixed to the floor and ceiling in plumb with each other with 6mm anchor fasteners at 620mm c/c, vertical studs of size 51mm, 0.5mm thick having one flange of	1 Sqm	4382

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		42mm and another flange of 44mm and two equal lips of 6mm insert fixed into the track profiles at 620mm centres, 12mm thick Everest board confirming to IS 14862 Type B and 12.5 thick Gypsum plaster board are screw fixed to the either side of the framework as inner and outer layer with 25mm fibre cement screws and 35mm drywall screws, respectively at 300mm centres. The cavity of frame should be filled with mineral wool of 48kg/m ³ density and 50mm thickness. Finally, the joints of the Gypsum plaster board are to be jointed and finished with joint tape and gypsum jointing compound. All the periphery of the partition should be sealed with acoustic cum fire rated sealant.		
L	SECTION	DOORS, SHUTTERS & FRAMES		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	DOOR FRAMES		
535	TBSC-L.I-01	Mild Steel Hallow single rebate general purpose door frames manufactured using cold roll formed process steel sheet of 1.25 mm thick bright (Cold Rolled Close Annealed (CRCA) and profile-B of size 105 x 60 mm conforming to IS 4351 - 2003 including pre-treatment, phosphating with Hinges, Base Ties, Holdfast Lugs, Mortar Guards, shock absorbers and provision for Tower Bolts, Aldrops, Lock & Strike plates etc. for both single and double shutter doors	1 Rm	399
536	TBSC-L.I-02	Powder Coated Mild Steel Hallow single rebate door frames manufactured using cold roll formed process steel sheet of 1.25 mm thick bright (Cold Rolled Close Annealed (CRCA) and profile size of 105 x 60 mm conforming to IS 4351 - 2003 including pre-treatment, Galvanized as per IS:277, zinc phosphating finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability/Epoxy polyester powder for powder coating paint thickness 60 - 65 microns(Dry film thickness)Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame with Hinges, Base Ties, Holdfast Lugs, Mortar Guards, shock absorbers and provision for Tower Bolts, Aldrops, Lock & Strike plates etc. for both single and double shutter doors	1 RM	732
537	TBSC-L.I-03	Providing and fixing factory-made polyvinyl chloride (PVC) Door Frame of the size 50 x 47mm with a wall thickness of 5mm, made from extruded 10 mm rigid PVC foam sheet, mitre cut at two corners and joined with 2nos. of 150mm long brackets of 15x15mm M.S. square tube. The two vertical door profiles are to be reinforced with 19x19mm M.S. Square tube of 19 gauge. The door frame shall be fixed to the wall using 65/100mm long M.S. Screws through the frame by	1 Rm	315

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		using PVC fasteners. A minimum of 4nos. of screws to be provided for each vertical member & minimum 2nos. for horizontal member etc. complete as per manufacturers specification and direction of Engineer-in-Charge for finished item of work		
538	TBSC-L.I-04	SUPPLY & FIXING SINGLE SIDE PRELAM SOLID PANEL PVC DOOR FRAME (CHOUKHAT) Providing and fixing factory-made Pac single side Prelam door frame of the size 50X47 mm with a wall thickness of 5mm, made from extruded 5mm rigid Pac single side prelam sheet, meter cut at two corners and joined with 2nos. of 150mm long brackets of 1515mm MS. Square tube. The two vertical door profiles are to be reinforced with 19X19mm MS. square tube of 19 gauge. The door frame shall be fixed to the wall using 65/100mm long MS. Screws through the frame by using Pac fasteners. a minimum of 4nos. of screws to be provided for each vertical member and minimum 2nos. for horizontal member etc. complete as per manufacture specification and direction of Engineer-in-charge.	1 Rm	330
539	TBSC-L.I-05	Supply and fixing of door frame made of hollow extruded PVC section having dimensions of 40 X 57mm with the wall thickness of 2mm +/- 0.2mm duly reinforced with seasoned wood plank at the hinges side. The door frame top 2 corners shall be metre-cut/ welded. PVC DOOR FRAME	1 RM	256
540	TBSC-L.I-06	Supply and fixing of door frame made of hollow extruded PVC section having dimensions of 40 X 47 mm with the wall thickness of 2mm +/- 0.2mm duly reinforced with seasoned wood plank at the hinges side. The door frame top 2 corners shall be mitre cut/welded	1 RM	202
541	TBSC-L.I-07	Supply & fixing of Door frames made of all formed sections of 1.25mm thick CRCA section, size should be 50x60mm with 32mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. complete for finished item.: Single shutter 3'-0" x 7'-0" (914.4x2133.6mm) outer frame section size of 50 x 60 mm	1RM	237
542	TBSC-L.I-08	Supply & fixing of Door frames made of all formed sections of 1.25mm thick CRCA section, size should be 50x60mm with 32mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. complete for finished item.: Double shutter 5'-0" x 7'-0" (1524 x 2133.6mm) outer frame section size of 50 x 60	1 RM	237

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		mm		
543	TBSC-L.I-09	Supplying & fixing of Door frame made of roll formed section of 1.25 mm thick CRCA section, size should be 50 x 75 mm with 32 mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. Complete for finished item of work.: Single shutter 3'-0" x 7'-0" (914.4x2133.6mm) outer frame section size of 50 x 75 mm	1 RM	267
544	TBSC-L.I-10	Supplying & fixing of Door frame made of roll formed section of 1.25 mm thick CRCA section, size should be 50 x 75 mm with 32 mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. Complete for finished item of work.: Single shutter 5'-0" x 7'-0" (1524x2133.6mm) outer frame section size of 50 x 75 mm	1 RM	267
545	TBSC-L.I-11	Providing and fixing door frames fabricated from sections made of galvanized steel powder coated (base steel as per IS 513, galvanized as per IS 277 with zinc of 120 grams / square metre), the factory made section are powder coated with pure polyester powder of 50-60 microns thick with total coated thickness of 1.25 mm, size of door frame section is of 105 x 60 mm with a rebate of 38 mm to accommodate 35 mm thick door shutter, with groove to insert gasket in the frame section, frame section filled with polyurethane foam, cut to length, and joined by way of welding, each frame provided with: a) 2mm thick MS powder coated butt hinges of 100 mm long - 3 Nos. for single shutter, 6 Nos. for double shutter. b) CRCA electroplates stiffeners of 6 Nos. - 3 in each vertical. c) 40 mm x 200 mm x 1.2 mm hold fasts screwed to stiffeners - 6 Nos. with split end tail. d) Nylon Aldrops Receiver - 1 No. for single shutter frame. e) Tie Rod - 1 No	1 RM	812
546	TBSC-L.I-12	Providing and fixing of door frames factory made, internal door frames without threshold, fabricated from pre painted cold roll formed section 100 mm x 60 mm made of galvanized (base steel as per IS-513 'D' quality galvanized as per IS-277 with Zinc of 120 Gms/sqm) steel colour coated sections with total coated thickness of 1 mm primer coated with epoxy primer of 5-7 microns thick finish painted with polyester paint of 12-16 microns and back coated with alkyd backer of 5-7 microns, the frame section filled with polyurethane (PU Foam) of 40 kg/Cum and the sections cut to length and mitre joined by	1 RM	461

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		means of 1.25 mm thick CRCA electroplated corner brackets of size 75 x 75 mm and 1.25 mm thick electroplated stiffeners of size 150 mm for fixing hold fasts and hinges with MS Powder coated fittings a) 6 Nos M.S. Z Type hold fasts made of 30 mm x 3 mm MS flat of 230 mm long, 3 Nos each size expandable PVC covered screw type fasteners b) 2.5 mm x 300 mm long 'T' hinges /2.5 mm x 50 mm x 50 mm x 100 mm two way but hinges (3 Nos for single leaf or 2 Nos for Double leaf/leaf) c) 12 mm Diameter MS tie rod at bottom with necessary size of nuts on either side.		
547	TBSC-L.I-13	Supply and fixing of factory made Bathroom door frames without threshold, fabricated from pre-painted cold roll formed section 50mm x 50 mm made of galvanized steel as per IS - 513 'D' quality, galvanized as per IS-277 steel colour coated sections primer coated with epoxy primer finish painted with polyester paint the frame section filled with polyurethane (P.U. Foam) of 40 Kg/Cum; and the sections joined by means of 1.25mm thick CRCA electroplated corner brackets of size 75 x 75 mm and 1.25mm thick electroplated stiffeners of size 150mm for fixing hold fasts and hinges together with the following MS Power coated fitting (Supply and fixing) of approved make. a) 6 Nos M.S. Z. Type hold fasts made of 30mm x 3 mm MS flat of 230mm long, 3 Nos each side expandable PVC covered screw type fasteners b) 2.5 mm x 300 mm long 'T' hinges / 2.5mm x 50 mm x 100mm two way but hinges (3 Nos for single leaf or 2 Nos for Double leaf /leaf) c) 12 mm Diameter MS tie rod at bottom with necessary size of nuts on either side.	1 RM	416
548	TBSC-L.I-14	Supply of factory made Precast Reinforced Cement concrete door frame of with overall dimension of 60 x 100 mm for single shutter door (+/-2mm) three nos, of 6mm dia steel bars are used for longitudinal reinforcement for each vertical and horizontal member and are held firmly by 3mm dia ties spaced at not more than 300mm c/c Polymer wonder blocks are provided in the frames for tower bolt and hinges provisions made in the frame for Aldrops provisions are made in the vertical member for fixing of 3 nos. hold-fasts with 8 mm dia bolts and the frame surface shall be smooth without any voids and shall confirm to IS 6523 complete finished item including all taxes as per specifications & the directions of the Engineer-in-Charge.	1 RM	349
549	TBSC-L.I-15	Supply of factory made Precast Reinforced Cement concrete double door frame of the door frame shall have overall dimension of 60 x 125 for single shutter door(+/-2mm) four nos, of 6mm dia steel bars are used for longitudinal	1 RM	453

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		reinforcement for each vertical and horizontal member and are held firmly by 3mm dia ties spaced at not more than 300mm c/c Polymer wonder blocks for fixing of tower bolt and hinges with provision for Aldrops and 3 nos. hold-fasts with 8mm dia bolts and the frame surface shall be smooth without any voids and shall confirm to IS 6523 complete finished item including all taxes as per specifications & the directions of the Engineer-in-Charge.		
550	TBSC-L.I-16	Fixing of precast RCC frames (Precast RCC framed members to be supplied at site) including assembling the members for door frames fixing to MS masonry or RCC wall face including providing and fixing Six no. hold-fasts of MS Flat 40x5mm and length 40cm per frame embedding in cement concrete blocks of size 30x10x15 cm of mix (1 cement:3 Coarse sand: 6 graded stone aggregate 20 mm nominal size) complete as per specification & the directions of the Engineer-in-Charge	1 RM	277
551	TBSC-L.I-17	Providing and fixing factory-made solid Wood Polymer Composite (WPC) single extruded Door Frame section of 100*65 MM with encapsulation of 6 MM rigid layer on all external surfaces. The door frame will have a rebate of 32MM/ 37 MM. The two Vertical members are to be joined together with the horizontal member using 8x75 MM long MS Star full thread screws to be used with reverse forward speed control hand drilling machine. The ready/assembled door frame is fixed to wall using Z Hand fast 300 MM long hold fast.	1 RM	777
552	TBSC-L.I-18	Supplying and fixing of 28/30 mm thick Wood Plastic Composite (WPC) Door shutter, comprising of 70% virgin polymer, 15% wood powder (fibre), and the remaining 15% additives, comprising of virgin PVC polymer of K value 58-60 (Suspension grade), Calcium carbonate and natural fibres (wood powder) and nontoxic additives (maximum toxicity index of 12 for 100 gms) having minimum door density of 650 kg/cum, screw withdrawal strength 1800N (Face) & 900N (Edge), Modulus of Elasticity 900N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk SS screws all as per direction of Engineer -in- Charge (SS butt hinges and SS screws shall be paid separately)	1 Sqm	2138
553	TBSC-L.I-19	Supplying and fixing of 24/26 mm thick Wood Plastic Composite (WPC) Door shutter, comprising of 70% virgin polymer, 15% wood powder (fibre), and the remaining 15% additives, comprising of	1 Sqm	2008

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		virgin PVC polymer of K value 58-60 (Suspension grade), Calcium carbonate and natural fibres (wood powder) and nontoxic additives (maximum toxicity index of 12 for 100 gms) having minimum door density of 650 kg/cum, screw withdrawal strength 1800N (Face) & 900N (Edge), Modulus of Elasticity 900N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk SS screws all as per direction of Engineer -in- Charge (SS butt hinges and SS screws shall be paid separately)		
II	SUB-SECTION	DOOR SHUTTERS WITHOUT FRAMES		
554	TBSC-L.II-01	Flush door shutters, solid bond wood block board type with teak ply on both faces.: 25 mm thick conforming to IS:2202	1 Sqm	2007
555	TBSC-L.II-02	Flush door shutters, solid bond wood block board type with teak ply on both faces.: 30 mm thick conforming to IS:2202	1 Sqm	2106
556	TBSC-L.II-03	Flush door shutters, solid bond wood block board type with teak ply on both faces.: 35 mm thick conforming to IS:2202	1 Sqm	2300
557	TBSC-L.II-04	Flush door shutters, solid bond wood block board type with commercial ply on both faces.: 25 mm thick conforming to IS:2202	1 Sqm	1146
558	TBSC-L.II-05	Flush door shutters, solid bond wood block board type with commercial ply on both faces.: 30 mm thick conforming to IS:2202	1 Sqm	1383
559	TBSC-L.II-06	Flush door shutters, solid bond wood block board type with commercial ply on both faces.: 35 mm thick conforming to IS:2202	1 Sqm	1564
560	TBSC-L.II-07	Flush door shutters, solid bond wood block board type with commercial ply on both faces.: 40 mm thick conforming to IS:2202	1 Sqm	1771
561	TBSC-L.II-08	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 20 mm thick conforming to IS:2202	1 Sqm	2205
562	TBSC-L.II-09	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 25 mm thick conforming to IS:2202	1 Sqm	2142
563	TBSC-L.II-10	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 30 mm thick conforming to IS:2202	1 Sqm	2372
564	TBSC-L.II-11	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 35 mm thick conforming to IS:2202	1 Sqm	2586
565	TBSC-L.II-12	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 40 mm	1 Sqm	2956

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		thick conforming to IS:2202		
566	TBSC-L.II-13	Supply and fixing of Cement Bonded Prelaminated Particle Board single door shutter using 16MM Cement Bonded Prelaminated Particle Board with all round section "U" size of mm thick galvanized pre-painted cold rolled steel profiles Cement Bonded Prelaminated Particle Board with necessary screws fixed at every 1'0" (304.8mm) intervals. The cost inclusive of MS Nickel coated 250mm long Aldrops 2 no's , MS powder coated 250mm long tower bolt 1 no's, 2no's MS powder coated 125mm long grip handle, 1 no's M.S.P.C. Door stopper. Including cost and conveyance of all materials at site labour charges etc., complete finished item of work.	1 Sqm	2623
567	TBSC-L.II-14	Supply and fixing of Cement Bonded Prelaminated Particle Board double door shutter using 16MM Cement Bonded Prelaminated Particle Board with all round "U" section size of 20mm x 18mm x 20mm made from 0.6mm thick galvanized pre-painted cold rolled steel profiles with Cement Bonded Prelaminated Particle Board separating two shutter with 30mm x 20mm x 30mm stepped lipping with necessary screws fixed at every 1'0" (304.8mm) intervals. The cost inclusive of MS Nickel coated 250mm long Aldrops 2no's, MS powder coated 125mm long grip handle, 2 no's M.S.P.C. Door stopper. Including cost and conveyance of all materials at site labour charges etc., complete finished item of work.	1 Sqm	3331
568	TBSC-L.II-15	Supply and fixing of Cement Bonded Prelaminated Particle Board door shutter made from U sections of size 12x14x12 made from 0.6mm thick pps sections with 12MM Cement Bonded Prelaminated Particle Board with necessary screws fixed at every 1'.0"interwells. The hardware consists of 250mm long Aldrops - 2 Nos.150mm Handle- 1 No , 150 mm long ms powder coated tower bolt 1 no. nickel coated. The cost is inclusive of all incidentals, labour transportation charges.	1 Sqm	2566
569	TBSC-L.II-16	Supply and fixing of Cement bonded Particle BOARD (conforming to IS 14862) door shutter with all-round style "U" lipping size 15 x 18 x 15 mm made from 0.8 mm thick powder coated cold rolled steel profiles with 16 mm thick Cement bonded Particle BOARD with necessary screws fixed at 1'-0" interval 250 mm long Aldrops 2 nos. M.S. nickel coated 250 mm long 1 no. M.S. Tower Bolts Including cost and conveyance of all materials at site and applying 1 coat of primer, 2 coats of luppam and 2 coats of synthetic enamel paint as per approved design for finished item of work.	1 Sqm	1766
570	TBSC-L.II-17	Supply and fixing of Cement bonded Particle	1 Sqm	1512

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		BOARD (conforming to IS 14862) 12 mm thick door shutter of size 6'0" x 2'6" with all-round style "U" lipping size 15 x 14 x 15 mm made from 0.8 mm thick powder coated cold rolled steel profiles with necessary screws fixed at 1'-0" interval 250 mm long Aldrops 2 nos. M.S. nickel coated 250 mm long 1 no. M.S. Tower Bolts Including cost and conveyance of all materials at site and applying 1 coat of primer, 2 coats of luppam and 2 coats of synthetic enamel paint as per approved design for finished item of work.		
571	TBSC-L.II-18	Supply and fixing door shutter with frame made from PVC section and panels conforming to IS:10151-1982 having panel sizes of 100 mm x 30 mm with self-extruded grooves at 40 mm x 50 mm grooves on front face and the infill panel dimension is 610 mm x 20 mm seamless hollow multi chambered PVC single panel for finished item of work.	1 Sqm	2532
572	TBSC-L.II-19	Moulded panel solid core flush doors using water-resistant hardwood fibre HDF / MDF fibre boards skins of 2.5 mm thick of Masonite or equivalent doors - 30 mm thick	1 Sqm	1729
573	TBSC-L.II-20	Moulded panel solid core flush doors using water-resistant hardwood fibre HDF / MDF fibre boards skins of 2.5 mm thick Masonite or equivalent doors - 35 mm thick	1 Sqm	1890
574	TBSC-L.II-21	Solid core membrane flush doors using rigid PVC membrane of 0.3 mm thick of different elegant shades doors - 30 mm thick	1 Sqm	1272
575	TBSC-L.II-22	Solid core membrane flush doors using rigid PVC membrane of 0.3 mm thick of different elegant shades doors - 35 mm thick	1 Sqm	1409
576	TBSC-L.II-23	Providing and fixing 35mm thick FACTORY-MADE MOULDED DOOR SHUTTER consisting of solid core single leaf flush door of 30mm thickness, lipped with 15mm (5mmX3) thick X 30mm width on one stiles and top rails and 10mm (5mmX2) thick X 30mm width on the other stiles and bottom rails. The inner panel laminated with 2mm thick termite proof, waterproof and fire-resistant moulded Pac sheet with 2,4,6 raised panel design in different panel and / or prelam colours on one side after routing the moulded design on flush door and 2mm prelam Pac sheet on other side using rubber adhesive on flush door and solvent cement adhesive on Pac lipping etc. complete as per direction of Engineer-in-Charge, manufacture specification and drawing	1 Sqm	3105
577	TBSC-L.II-24	Supply & Fixing SOLID STEEL DOOR shutter made from G I Precoated Sheet with an average wall thickness of 0.35 mm on both sides. MS Tube having dimensions of 19 x 19 mm is inserted along the hinge side of the door, core of the door shutter filled with High Density Polyurethane foam injected with the help of hydraulic	1 Sqm	1585

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		injection method, four sides of the door covered with G I Precoated Sheet and the hardware locations reinforced with suitable wooden blocks as per drawing and stickers indicating location of the hardware pasted at appropriate places, etc complete		
578	TBSC-L.II-25	Providing of 35mm thick Factory made Prelaminated ABS (Acrylonitrile Butadiene Styrene) Door shutter moulded in different designs, consisting of all round Frame made from waterproof solid foam PVC bar of size 20x32mm, reinforced by 32x 32mm - 2 nos. for vertical made from LVL (Laminated Veneer Lumber), core material of 32 mm thick high density craft paper honeycomb board, sandwiched on both sides with prelaminated ABS sheet thickness of 1.5mm . PVC edge banding of size 0.45mm on the vertical sides for each shutter and ISI make S.S round lock complete for finished item of work	1 Sqm	6615
579	TBSC-L.II-26	Supply and fixing of Cement Bonded Prelaminated Particle Board door shutter conforming to IS-14276 made from U sections of size 12 x 18 x 12 made from 0.6mm thick PPS sections with 16 mm Cement Bonded Prelaminated Particle Board with necessary screws fixed at every 1'.0"interwells. The hardware consists of 12 mm dia x 200mm long Aluminium Aldrops - 2 Nos. 125 mm long Handle- 2 Nos. 3 mm x 12 mm x 180 mm long 304 SS hinges- 3 Nos with pole receiver of 10mm dia pole X40mm long welded on 2mm X40mm(ss304) plates works as receiver for RT patte hinges. The cost is inclusive of all incidentals, labour transportation charges.	1 Sqm	2852
580	TBSC-L.II-27	Providing and fixing factory made extruded WPC (Wood Polymer Composite) solid white colour board for cupboards and bathroom/kitchen cabinet/partitioning/wall panelling/wall cladding of required size comprising of virgin PVC polymer of K value 58-60 (Suspension grade), Calcium carbonate and natural fibres (wood powder) and nontoxic additives (maximum toxicity index of 12 for 100 gms) having minimum door density of 650 kg/cum, screw withdrawal strength 1800N (Face) & 900N (Edge), Modulus of Elasticity 900N/mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk SS screws all as per direction of Engineer -in- Charge (SS butt hinges and SS screws shall be paid separately) - 6mm Thick	1 Sqm	926
581	TBSC-L.II-28	Providing and fixing factory made extruded WPC (Wood Polymer Composite) solid white colour	1 Sqm	1854

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		board for cupboards and bathroom/kitchen cabinet/partitioning/wall panelling/wall cladding of required size comprising of virgin PVC polymer of K value 58-60 (Suspension grade), Calcium carbonate and natural fibres (wood powder) and nontoxic additives (maximum toxicity index of 12 for 100 gms) having minimum door density of 650 kg/cum, screw withdrawal strength 1800N (Face) & 900N (Edge), Modulus of Elasticity 900N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk SS screws all as per direction of Engineer -in- Charge (SS butt hinges and SS screws shall be paid separately) - 12mm Thick		
582	TBSC-L.II-29	Providing and fixing factory made extruded WPC (Wood Polymer Composite) solid white colour board for cupboards and bathroom/kitchen cabinet/partitioning/wall panelling/wall cladding of required size comprising of virgin PVC polymer of K value 58-60 (Suspension grade), Calcium carbonate and natural fibres (wood powder) and nontoxic additives (maximum toxicity index of 12 for 100 gms) having minimum door density of 650 kg/cum, screw withdrawal strength 1800N (Face) & 900N (Edge), Modulus of Elasticity 900N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk SS screws all as per direction of Engineer -in- Charge (SS butt hinges and SS screws shall be paid separately) - 18mm Thick	1 Sqm	2798
III	SUB-SECTION	DOORS WITH SHUTTERS & FRAMES		
583	TBSC-L.III-01	Providing and fixing 30mm thick Solid panel PVC door shutter consisting of frame made from M.S. tubes of 19-gauge thickness and size of 19mm x 19mm for stiles, & 15mm x 15mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame shall be covered with 5mm thick heat moulded PVC 'C' channel of size 30 x 50mm forming stiles, and 5mm thick, 75mm wide PVC sheets for top rail, lock rail & bottom rail on either side, and 10mm (5mm x 2) thick, 20mm wide cross PVC sheet as gap insert for top rail & bottom rail. Panelling of 5mm thick PVC sheet to be fitted in the M.S. frame welded / sealed to the stiles & rails with 30mm wide x 5mm thick PVC sheet beading on either side, and joined together with solvent cement adhesive	1 Sqm	2292

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		etc. An additional 5mm thick PVC strip of 20mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive. Complete as per direction of Engineer-in-charge, manufacturer's specification & drawing for finished item of work .		
584	TBSC-L.III-02	Providing and fixing 30mm thick FACTORY MADE BOTHSIDE PRELAM SOLID PANEL PVC DOOR SHUTTER consisting of frame made from MS. Tubes of 19gauge thickness and size of 19mmX19mm for stiles, top and bottom rails. MS. Frame shall have a coat of steel primers of approved make and manufacture. MS. Frame covered with 5mm thick heat moulded Prelam Pac 'C' channel of size 30mm thickness, 70mm width out of which 50mm shall be flat and 20mm shall be tapered in 450 angle on either side forming stiles; and 5mm thick, 95mm wide Prelam Pac sheet out of which 75mm shall be flat and 20mm shall be tapered in 450 on the inner side to form top and bottom rail 115mm wide Prelam Pac sheet out of which 75mm shall be flat and 20mm shall be tapered on both sides to form lock rail. Top, bottom and lock rail shall be provided either side of the panel. 10mm (5mmX2) thick, 20mmwide cross Pac sheet shall be provided as gap insert for top and bottom rail. Panelling of 5mm thick both side Prelam Pac sheet to be fitted in the MS. Frame welded/ sealed to the stiles & rails with 7mm(5mm+2mm) thick X 15mm wide Pac sheet beading on inner side, and joined together with solvent cement adhesive etc. an additional 5mm thick Pac strip of 20mm width is to be stuck on the interior side of the 'C' channel using Pac solvent cement adhesive etc. complete as per direction of Engineer - in-charge, manufacture specification and drawing.	1 Sqm	2618
585	TBSC-L.III-03	Providing and fixing 30mm thick FACTORY MADE SOLID SINGLE SIDE PRELAM PANEL PVC DOOR SHUTTER consisting of frame made from MS. Tubes of 19gauge thickness and size of 19mmX19mm for stiles, and 15mmX15mm for top and bottom rails. The MS. Frame shall have a coat of steel primers of approved make and manufacture. MS. Frame covered with 5mm thick heat moulded single side Prelam Pac 'C' channel of size 30mmX50mm to form stiles. 5mm thick & 75mm wide single side prelim Pac sheets shall be for the top, bottom and lock rails. Panelling of 5mm thick one side Pac sheet to be fitted in the MS. Frame and sealed to the front (prelam side) stiles and rails (which should have a 5mm 45 bent portion as beading) and attached to the back(white/ivory) stiles and rails which should have a 10mm 900 bent portion as beading) using	1 Sqm	2377

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		2nos. 15mm wide X 5mm thick Pac sheet beading inside the 90-bent beading. All stiles, rails and beadings are to be joined to the panel using solvent cement etc. an additional 5mm thick Pac strip of 20mm width to be stuck on the interior side of the 'C' channel using Pac solvent cement adhesive and 10mm(5mmX2) thick, 20mm wide cross Pac sheet to be fitted as gap insert for top and bottom rail etc. complete as per direction of Engineer -in-Charge, manufacture specification and drawing.		
586	TBSC-L.III-04	MOULDED PVC DOOR - WOOD FREE Providing and fixing 30mm thick Brand factory made Moulded door shutter- wood free consisting of frame made from MS. tubes 19gauge thickness and size of 25mmX25mm for stiles, top and bottom rails. MS. Frame shall have a coat of steel primers. The inner panel shall consist of 25mm thick High-density EPS conforming to IS 4671-1984 bounded with 2mm thick termite proof, waterproof and fire-resistant moulded Pac sheet with 2,4,6 raised panel design in different plain and / or prelam colours after routing to the moulded design on one side and 2mm plain and / or prelam Pac sheet on other side of the EPS. The edge of panel to be sealed with lipping of 10mm wide PVC sheet bottom (made by sticking 2 rigid foam sheets of 5mm thickness using Pac solvent cement) and stiles sides 25mm(5mmX5) thick and 30mm width Pac sheet fitted along Ms. Tube for lock provision for lock height 5mm thick Pac sheet of size 150mmX100mm fixed with upper and lower face of inner side of EPS Panel etc. Complete as per direction of Engineer - in-Charge, manufacture specification and drawing	1 Sqm	2401
587	TBSC-L.III-05	Providing and fixing 30mm thick FACTORY-MADE WIRE MESH SOLID PVC DOOR SHUTTER consisting of frame made from M.S. tubes of 19-gauge thickness and size of 19mmX19mm for stiles and 15mm for top, lock & bottom rails. MS. Frame shall have a coat of steel primers of approved make and manufacture. 19mmX19mm M.S. square tubes shall be covered with 5mm thick heat moulded "" PVC 'C' channel of size 30mm thickness, 90mm width out of which 75mm shall be flat and 15mm shall be flat and 15mm shall be bent in 900 on the inner side to from top and bottom rail land 130mm wide PVC sheet out of which 100mm shall be flat and 154mm shall be bent in 900 on both side to from lock rail, 10mm(5mmX2) thick, 20mm wide cross PVC sheet as gap insert for top rail & bottom rail. Panel will be of G.I. wire mesh of 24gauge to be fitted in by 'C' channel of size 35mm X10mm on the either side in the stiles. The inner side 'C' channel is fixed by 19mmX19mm MS. Tube on both sides	1 Sqm	2134

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		with screws. The wire mesh in top bottom & lock rail is sealed with 15mm X 15mm tube with G.I. wire 10mm(5mmX2) thick PVC strip of 25mm width is to be stuck & nails on both side of G.I. wire mesh interior at the top, bottom & lock rail. An additional 5mm thick PVC strip of 20mm width is to be stuck on the interior side of the 'C' channel using PVC solvent cement adhesive etc. complete as per direction of Engineer-in-charge, manufacturer's specification & drawings		
588	TBSC-L.III-06	Providing and fixing door & shutter of which frame made from 1.2 mm powder coated cold rolled steel profiles of overall section size of 60 mm x 45 mm with 21 mm rebate for shutter with necessary stiffeners hinges and screws with Cement bonded Particle BOARD (IS 14862) shutter with all-round style "U" lipping of size 15 x 18 x 15 mm made from 0.8 mm thick CRCA powder coated steel profile with 16 mm thick Cement bonded Particle board with necessary screws fixed at every 1'-0" interval 250 mm long Aldrops 2 nos. M.S. nickel coated 250 mm long 1 no. M.S. Tower Bolts including cost and conveyance, one coat of primer, 2 coats of luppam and 2 coats of synthetic enamel paint as per approved colour, labour charges etc.	1 Sqm	2081
589	TBSC-L.III-07	Doors Frames (Colour Coated Steel Sections) & Shutter using Cement Bonded Particle Board as per IS 14276 (Cement Bonded Particle Board conforming to IS 14276 or equivalent) : Providing and fixing of door frame made from cold roll formed sections made of galvanized (Base steel as per IS277 with zinc of 120 Gms/sqm) colour coated steel sections with total coated thickness of 1mm, primer coated with epoxy primer coat of 5-7 microns thick, finish paint with polyester paint of 12-16 microns. The Section for door frame is to be filled with polyurethane (P.U) form of 40kg/m3. Overall size of frame section should be of 50mm x 50mm. With necessary corner brackets, stiffeners, hinges, and screws. Cement Bonded particle board shutter (Cement Bonded Particle Board conforming to IS 14276 or equivalent) "Single Leaf" with all round style's "U" section of size 12m x 18m x 12mm made from 0.6 mm thick galvanized, colour coated cold rolled steel profiles with 16mm thick Cement Bonded particle Board (Cement Bonded Particle Board conforming to IS 14276 or equivalent) with necessary screws fixed at every 1'-0" (304.8mm) intervals. The cost inclusive of MS nickel coated Aldrops of size 250mm long 2nos. 200mm long tower bolt 1no., 125mm handles 2nos., cost and conveyance of all materials at site and applying one coat primer , one coat of luppam and two coats of synthetic enamel paint as per approved	1 Sqm	4114

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		design for finished item of work		
590	TBSC-L.III-08	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 2 Track-2 Panel Sliding Doors duly manufactured using UPVC reinforced profiles(Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of 60 mm x 45 mm x 2.20 mm with reinforcement of 1.2 mm thickness, super sash with overall size of 39 mm x 75 mm x 2.20 mm with for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.5 mm prefabricated & welded through fusion welding the door sash shall be fitted with 6 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. Door shall be provided with standard hardware & multi point locking system of bent handle espagulate .the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	6063
591	TBSC-L.III-09	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 3 track sliding doors with mesh shutter provision - (2-glass shutters)- 95 -Series duly manufactured using UPVC reinforced profiles(Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of (108 mm x 45 mm)/(95.50 mm x 60 mm) x 2.20 mm for outer frames, (75 mm x 39 mm)/(66 mm x 42 mm) x 2.20 mm for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the door sash shall be fitted with 6 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. Door shall be provided with standard hardware & multi point locking system of Patio/Bent espagulate .the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	6821
592	TBSC-L.III-10	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 3 track sliding doors with mesh	1 Sqm	7538

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		shutter - (2-glass shutters and 1-mesh shutter)- 95 - Series duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO ₂ and not more than 12 PHR of CaCo ₃ for every 100 parts of PVC resin) of (108 mm x 45 mm)/(95.50 mm x 60 mm) x 2.20 mm for outer frames, (75 mm x 39 mm)/(66 mm x 42 mm) x 2.20 mm for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the door sash shall be fitted with 6 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. Mesh shutter shall be made of (48 mm x 30 mm)/(50 mm x 26.5 mm) x 2.0 mm uPVC profile section and fitted with Vinyl Coated Fibre mesh and rollers/pulley duly fixed with TPV Gaskets weathering seal resistant Door shall be provided with standard hardware & multi point locking system of Patio/Roto espagulate and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.		
593	TBSC-L.III-11	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) sliding doors three track - three glass shutters sliding - 112 -Series duly manufactured using UPVC reinforced profiles of 112.0 mm x 60 mm x 2.25 mm for outer frames, 66 mm x 42 mm x 2.25 mm for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make and fixed with EPDM weathering seal resistant accessories like clipping locking system made of aluminium 1 No., per set of sashes and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	6528
594	TBSC-L.III-12	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) openable doors with openable shutters duly manufactured using UPVC reinforced profiles (Composition of profile shall	1 Sqm	8544

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		consists a minimum of 5.5 PHR of TiO ₂ and not more than 12 PHR of CaCo ₃ for every 100 parts of PVC resin) of 60 mm x 55 mm x 2.40 mm for outer frames, 74 mm x 60 mm x 2.40 mm for mullion sections as per the need and 102 mm x 60 mm x 2.40 mm for openable shutter frame capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the door sash shall be fitted with 6 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gaskets for sash & Glazing bead shall be co-extruded with Grey colour soft PVC System shall be provided with 4 no's of 3D Hinges for each shutter and multipoint locking with keys with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.		
595	TBSC-L.III-13	Supplying and fixing door shutter, with shutter frame and infill panel made from PVC material conforming to IS: 10151-1982, the shutter frame made out of PVC extruded sections having overall dimension of 47 mm x 33 mm with wall thickness of 1.2mm + 0.3mm with usual process variation, the shutter frame with tapered shape to provide better grip to the infill panel end to drain out the water The Infill panel is made out of PVC Sections having Overall Dimensions of 200 mm x 20 mm with wall thickness of 1mm + 0.2mm, the shutter frames mitre cut and joined at the corner, by providing Polymeric " L " type corners to take hardware & fixtures fixed with 10-20mm counter sunk fully threaded parallel shank steel screws, all the hardware locations reinforced with special polymeric bars as per drawings, stickers showing locations of different hardware pasted on the shutter, the infill panels joined by tongue and groove method.	1 Sqm	1007
596	TBSC-L.III-14	Supply and fixing of door shutters made of rigid PVC extruded hollow section of 20mm X 635 mm with the wall thickness of 1.0mm +/- 0.1mm equally divided into 4 nos with tongue and groove locking arrangements. The shutter frame is made of 30mm X 79mm with the wall thickness of 1.5mm +/- 0.15mm section mitre-cut and joined at 4 corners with 125mm X 225mm plastic brackets. The shutter shall be horizontally reinforced with 2 no's of 8mm PVC rods. Teak wood batons shall be reinforced inside the door shutter during the fabrication of the door shutter at those points wherever the hardware is fixed	1 Sqm	1866

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		onto the door shutter		
597	TBSC-L.III-15	Providing & fixing 30 mm thick solid panel PVC door shutter consisting of frame made from 19-gauge M.S tube of 19 x 19 mm for stiles, top & bottom rail, with a coat of primer of approved make. M.S. Frame covered with 5 mm thick heat moulded PVC "C" channel of size of 30 x 50 mm forming stiles, 5 mm thick 75 mm wide PVC sheet for top, lock & bottom rail on either side 20 mm wide cross PVC sheet as gap insert for top & bottom rail, panelling of 10mm(+/-)(5mm+5mm)" thick PVC sheet fitted in the M.S. frame welded /sealed to the stiles, on either side joined together with solvent cement adhesive etc., additional 5 mm thick PVC strip of 20 mm width stuck on the interior side of the C channel using solvent cement, complete as per direction of Engineer-in-charge, manufacturers specification.	1 Sqm	2939
598	TBSC-L.III-16	Supplying & fixing SINGLE PANEL 30 mm thick PVC DOOR, door shutters with shutter frame and Infill panel made from PVC material, the shutter frame made out of PVC extruded sections having overall dimensions of 105mm x 30 mm with wall thickness of 1.3 mm $\pm$ 0.3 mm, with the Infill panel made out of multi chambered seamless hollow PVC extruded panel having overall dimensions of 610 mm x 20 mm having wall thickness 1 mm $\pm$ 0.2 mm with the shutter frame meter cut and joined at corners and all the hardware locations reinforced with special polymeric bars as per drawing including providing special PVC bracket on hinge side, etc complete	1 Sqm	2527
599	TBSC-L.III-17	Providing & fixing internal prelamated PVC door frame of size 100 x 45 mm with a wall thickness of 5mm, made of extruded 5 mm Prelam PVC foam sheet, mitred cut at two corners and joined with two nos. of 150mm long brackets of 15 x 15 mm MS square tube, two vertical door profiles reinforced with 40 x 20 MS Tube of 19 gauge throughout the frame and the door frame fixed to the wall using 65/100mm long MS screws through the frame by using PVC fasteners with a minimum of 3 nos of screws provided for each vertical member and two nos. for horizontal, etc complete as per drawing and direction of Engineer in Charge	1 RM	583
600	TBSC-L.III-18	Supply & Fixing of Powder Coated Mild Steel doors, frames & shutters made of Skin pass galvanized Iron sheet conforming to Base Steel as per IS 513 "D" Quality, Galvanized as per IS 277 with Hot Zinc Coating of 120 grams / Sq.Mtr with powder coating of thickness 60-65 Microns, frame with 1.2mm thick Skin pass Galvanized Iron sheet formed to single rebate profile of size 100 mm X 58 mm and filled with in-fill Polyurethane	1 Sqm	13112

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		foam, the Door Shutters are with 0.80 mm thick Skin pass Galvanized Iron Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for industrial, commercial, residential, clean room applications		
601	TBSC-L.III-19	Providing & Fixing of Scientific Doors with metal door frames and door shutters made of galvanize steel (base steel as per IS 513 of 0.58 mm thick D quality, galvanized as per IS 277 with Zinc of 120 GSM)coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability/Epoxy polyester powder for powder coating paint thickness 50-60 microns (Dry film thickness) outer frame section of 100 x 58 mm x 1.2 mm thick, shutter section of 0.80 mm thick galvanized steel sheet pressed (roll formed) for 46mm thick fully flush, double skin door shell seam joints at stile edges, in-fill of honeycomb Kraft paper used to give the required rigidity and effective acoustic insulation with 6" Tower bolt - 1 No., 6" D handles - 2 Nos., 10" Aldrops - 1 No., Butt Hinges - 3 Nos, Mortise Lock of approved quality - 1 No, frames fixed to the concrete/masonry wall by means of self-expanding screws complete for finished item of work for Single leaf Door	1 Sqm	12104
602	TBSC-L.III-20	Providing & Fixing of Scientific Doors with metal door frames and door shutters made of galvanize steel (base steel as per IS 513 of 0.58 mm thick D quality, galvanized as per IS 277 with Zinc of 120 GSM). coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability/Epoxy polyester powder for powder coating paint thickness 50-60 microns (Dry film thickness) outer frame section of 100 x 58 mm x 1.2 mm thick, shutter section of 0.80 mm thick galvanized steel sheet pressed (roll	1 Sqm	12911

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		formed) for 46mm thick fully flush, double skin door shell seam joints at stile edges, in-fill of honeycomb Kraft paper used to give the required rigidity and effective acoustic insulation with 6" Tower bolt - 2 Nos., 6" D handles - 2 Nos., 10" Aldrops - 1 No., Butt Hinges - 6 Nos, Mortise Lock of approved quality - 1 No, frames fixed to the concrete/masonry wall by means of self-expanding screws complete for finished item of work for Double leaf Door		
603	TBSC-L.III-21	Supply & Fixing of Stainless steel doors, frames & shutters made of stainless steel grade 304 of hairline finish, frame with 1.2mm thick formed to single rebate profile of size 100 mm X 58 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Stainless steel Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for industrial, commercial, residential, clean room applications	1 Sqm	24581
604	TBSC-L.III-22	Supply & Fixing of Powder Coated Fire Rated doors, frames & shutters made of Skin pass galvanized Iron sheet conforming to Base Steel as per IS 513 "D" Quality, Galvanized as per IS 277 with Hot Zinc Coating of 120 grams / Sq.Mtr with powder coating of thickness 60-65 Microns, frame with 1.2mm thick Skin pass Galvanized Iron sheet formed to double rebate profile of size 143 mm X 58 mm with maximum bending radius of 1.4 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Skin pass Galvanized Iron Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for 120 minutes Fire Rated door conforming to IS:3614 (Part2)	1 Sqm	15569

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		1992		
605	TBSC-L.III-23	Supply & Fixing of Powder Coated Fire Rated doors, frames & shutters made of Skin pass galvanized Iron sheet conforming to Base Steel as per IS 513 "D" Quality, Galvanized as per IS 277 with Hot Zinc Coating of 120 grams / Sq.Mtr with powder coating of thickness 60-65 Microns, frame with 1.2mm thick Skin pass Galvanized Iron sheet formed to double rebate profile of size 143 mm X 58 mm with maximum bending radius of 1.4 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Skin pass Galvanized Iron Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for 60 minutes Fire Rated door conforming to IS:3614 (Part2) 1992	1 Sqm	14750
606	TBSC-L.III-24	Supply & Fixing of Stainless steel Fire Rated doors, frames & shutters made of Stainless steel of 304 grade hairline finish, frame with 1.2mm thick Stainless steel of 304 grade hairline finish sheet formed to double rebate profile of size 143 mm X 58 mm with maximum bending radius of 1.4 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Stainless steel of 304 grade hairline finish Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles,	1 Sqm	24581

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Mortise Dead Bolt, etc for 120 minutes Fire Rated door conforming to IS:3614 (Part2) 1992		
607	TBSC-L.III-25	Supply & Fixing of Stainless steel Fire Rated doors, frames & shutters made of Stainless steel of 304 grade hairline finish, frame with 1.2mm thick Stainless steel of 304 grade hairline finish sheet formed to double rebate profile of size 143 mm X 58 mm with maximum bending radius of 1.4 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Stainless steel of 304 grade hairline finish Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for 60 minutes Fire Rated door conforming to IS:3614 (Part2) 1992	1 Sqm	21431
608	TBSC-L.III-26	Supply & Fixing of Lead Lined Clean room doors frames and shutters made of Skin pass galvanized Iron sheet (Conform to Base Steel as per IS 513 "D" Quality, Galvanized as per IS 277 with Hot Zinc Coating of 120 grams / Sq.Mtr).with powder coating of thickness 60-65 Microns, frame of 1.60mm thick galvanized steel sheet (Conform to IS 277) formed to Single/double rebate profile of size 100mm X 58mm/ 143x58mm, door frames with a single / multi-Layer of Lead sheet varying thickness from 3mm /1mm to 2mm depends on radiation level, the shutter with 1.2 mm thick Galvanized Steel Sheet (Conform to IS 277) formed to provide a 46mm thick fully flush, double skin door shell with Lock Seam joints at stile edges with a single / multi-Layer of Lead sheet varying thickness from 3mm /1mm to 2mm depends on radiation level, the lead sheets extend the full width and height of the door, Lead thickness is equal to the shielding in the adjacent wall, the door frames and door shutters are coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns, coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic	1 Sqm	17650

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Grade providing high levels of scratch resistance and durability, hardware with Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter etc complete for finished item		
609	TBSC-L.III-27	Supply & Fixing of Lead Lined Stainless steel Clean room door frames and shutters made of Stainless steel grade of 304 hairline finish, frame with 1.60mm (16SWG) thick hairline finish Stainless steel grade of 304 formed to Single/double rebate profile of size 100 mm x 58mm/ 143 x 58 mm, door frames with a single / multi-Layer of Lead sheet varying thickness from 3mm /1mm to 2mm depends on radiation level, the shutter with 1.2 mm thick hairline finish Stainless steel grade of 304 formed to provide a 46mm thick fully flush, double skin door shell with Lock Seam joints at stile edges with a single / multi-Layer of Lead sheet varying thickness from 3mm /1mm to 2mm depends on radiation level. The lead sheets extend the full width and height of the door. Lead thickness is to be equal to the shielding in the adjacent wall. Hardware can be provided with Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter etc complete for finished item of work	1 Sqm	27858
610	TBSC-L.III-28	Providing of Factory made prelaminated FPVC (Foamed Polyvinyl Chloride) Door frame of the size 105x40mm with a wall thickness of 10mm made from extruded rigid FPVC profile mitre joined with 6 Nos. of 50mm long screw. The door frame shall be fixed to the wall by using 80mm long screws through the frame with the help of PVC fasteners of 3 no's to be provided for each vertical member, GI stiffeners of ("U" channel of size 29x9x1mm, 150mm long) -3 no's at hinge point, Frame reinforcement of("U" GI channel of size 46x22x.06mm),Bottom tie rod of ("U" GI channel size of 15x15x1mm) etc. complete as per manufacturers specification for finished item of work. Maximum door frame size : 980 x 2070including providing of 35mm thick Factory made Prelaminated ABS (Acrylonitrile Butadiene Styrene) Door shutter moulded in different designs, consisting of all round Frame made out of water proof solid foam PVC bar of size 20x32mm, reinforced by 32x 32mm - 2 nos. for vertical made out of LVL (Laminated Veneer Lumber), core material of 32 mm thick high density craft paper honey comb board, sandwiched on both sides with prelaminated ABS sheet thickness of 1.5mm . PVC edge banding of size 0.45mm on the vertical sides. Hardware made from steel coated butterfly hinges - 3 Nos. for each shutter and ISI make S.S round lock completes for finished item of work. Maximum	1 Sqm	8134

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		shutter size of 910 x 2030 mm		
611	TBSC-L.III-29	Supply and fixing of toilet door shutter with frame made of M.S. door frame of 5 mm x 48 mm x 48 mm (L angel) as all-round frame the frame is coated with one coat of red oxide and two coats of enamel of approved colour. For shutter and the shutter is made with 16mm Bison lam shutter with all-round 'U' Lipping of PPS section of 12 mm x 18 mm x 12 mm x 0.60mm, along hardware of 200mm long and 12mm dia aluminium Aldrops 2 Nos, 2Nos of 125mm handle, 3 Nos of RT patte hinges IS 304gr SS 2mmX12mmX180mm long with a pole receiver of 10mmDia x 40mm by welded on 3mm x 40mm SS 304, plate it works as receiver for RT Patte hinges it is welded to M.S. angle . M.S. angle will be fixed to wall of self-expandable screws and caps	1 Sqm	4081
612	TBSC-L.III-30	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) sliding doors three track - three glass shutters sliding duly manufactured using UPVC reinforced profiles of 108.0 mm x 49 mm x 2.25 mm for outer frames, 85 mm x 41 mm x 2.25 mm for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with reinforced with 35mm x 10mm x 1.5mm thick with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make and fixed with uPVC glazing bead of 22.5mm x 18mm with "C" or "R" type inner and outer EPDM weathering seal resistant accessories like clipping locking system made of aluminium 1 No., per set of sashes and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	8885
613	TBSC-L.III-31	Providing and fixing of factory made pre hung door. Frame: Shutter is hung on Factory made door frame of 40mm or 48 mm thickness made of Cement Bonded Particle Board (Bison Panel) and Composite board for water resistant property. Depending on thickness of the wall, width of the frame covers the entire wall from 100 to 300 mm based on actual measurements. The frame is laminated with 0.2mm thick waterproof and scratch resistant PVC Foil using hot press and high-grade PUR adhesive and is fitted with casing wick (rubber beading) for energy, dust and sound efficiency. The frame is affixed to the wall using high strength expandable PU Foam using tension rods for precision and optional anchor bolts, side	1 Sqm	11812

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		and top of frame attached together using dowel screws and quick acting adhesives. Shutter: Factory made 42 mm thick shutter sandwiched with laminated Cement Bonded Particle Board (Bison Panel) 6 mm thick skins on both sides. Skeleton is made with Composite Board & Cement Bonded Particle Board (Bison Panel) of 30mm thickness (sides). Core of high density/ uniform load distribution featured Honeycomb and Laminated Veneer Lumber (LVL) for holding the lock body and hardware, laminated with 0.2mm thick waterproof and scratch resistant PVC Foil and edge-banded with 1mm thick PVC edge-band using hot press and high-grade PUR adhesives. Max opening dimensions in mm are 1100 (width) x 42 (thickness) x 2300 (height).		
614	TBSC-L.III-32	Supply and fixing of Bath/Toilet Door frame and shutter with 8mm Bison Lam(IS.15786) using with 50mmx35mmx1.3mm thick aluminium door frame of weight 220grm per Rft with a rebate of 30 mm for provision for shutter, shutter made with 45mmx25mmx1.3mm thick aluminium section of weight 210grms per Rft with 8mm groove to accommodate 8mm thick Bison lam(IS.15786) and shutter having 3nos of ss 304gr Butt hinges of 100mm long, 100mm aluminium handles -2nos, and also 2 nos of 200mmx12mm aluminium Aldrops ,the rates inclusive of all labour fixing at site and 50microns Ivory powder coated for aluminium door frame and shutter sections etc complete finished item of work .	1 Sqm	5164
615	TBSC-L.III-33	Supply and fixing of Bath room / Toilet door shutter with 16mm BISON Lam (IS 15786) door shutter with all round 'U' lipping of PPS section of size 12mm X 18mmX 12mmX0.6mm thickness with a hardware of 12mm dia X200mm long aluminium aldrops - 2 nos(Jyothi make)2 No of 125mm long handles(Jyothi make) and also 3 no Of IS304 grade Patee Hinges 3mmX12mmX180mm long with pole receiver of 10mm dia pole X40mm long welded on 2mm X40mm(ss304) plates works as receiver for RT patte hinges. The price inclusive of all material at site.	1 Sqm	3341
616	TBSC-L.III-34	Providing and Fixing Doors Frames (Colour Coated Steel Sections) & Shutter using Cement Bonded Particle Board as per IS 14276 (Bison Panel) : Providing and fixing of door frame made from cold roll formed sections made of galvanized (Base steel as per IS277 with zinc of 120 Gms/sqm) colour coated steel sections with total coated thickness of 1mm, primer coated with epoxy primer coat of 5-7 microns thick, finish paint with polyester paint of 12-16 microns. The Section for door frame is to be filled with polyurethane (P.U) form of 40kg/m3. Overall size of frame section should be of 50mm x 50mm.	1 Sqm	4784

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		With necessary corner brackets, stiffeners, hinges, and screws. Cement Bonded particle board shutter (Bison Panel) “Single Leaf” with all round style’s “U” section of size 12m x 18m x 12mm made from 0.6 mm thick galvanized, colour coated cold rolled steel profiles with 16mm thick Cement Bonded particle Board (Bison Panel) with necessary screws fixed at every 1’-0” (304.8mm) intervals. The cost inclusive of MS nickel coated Aldrops of size 250mm long 2nos. 200mm long tower bolt 1no., 125mm handles 2nos., cost and conveyance of all materials at site and applying one coat primer , one coat of luppam and two coats of synthetic enamel paint as per approved design for finished item of work		
IV	SUB-SECTION	CUP-BOARD DOORS		
617	TBSC-L.IV-01	Supply and fixing of cupboard frames and shutters and using 16mm Cement Bonded Particle Board conforming to IS 14276 duly painted both sides with one coat of primer and two coats of synthetic / enamel paint of approved shade and brand including fixing of hardware like M.S. powder coated Piano hinges of size 18mm x 18mm, brass ball catches, Aluminium tower bolts and handles , Godrej locks, synthetic glue, screws and nails including cost and conveyance of all materials, labour charges, all incidental and operational charges etc., complete for finished item of work at site as per the directions of Engineer in Charge.	1 Sqm	2552
618	TBSC-L.IV-02	Supply and fixing of box type cup board using Cement Bonded Particle Board conforming to IS 14276 for making frame of size 100mm x 35mm using two sandwiched 16MM boards, one Cement Bonded Particle Board conforming to IS 14276 and one Cement Bonded Prelaminated Particle Board with plain 35mm wood lipping. The Shutters are made of 16MM thick Cement Bonded Prelaminated Particle Board (Pre-Laminated Cement Bonded Particle Board) of approved shade inclusive of hardware like M.S. powder coated Piano hinges of size ¾” x ¾” , Aluminium powder coated handles of size 4” (101.6mm), Aluminium tower bolt 4” (101.6mm) Godrej locks, screws, wood lipping and synthetic glue etc., complete finish item of work.	1 Sqm	4193
619	TBSC-L.IV-03	Supply and fixing of PVC cupboards for kitchen and bedrooms shall be made from multi chambered PVC sections having overall dimensions of 20 X 762mm with a wall thickness of 1.2mm ± 0.3mm. The cabinets shall be made as per the requirements of the room with groove system. The PVC section surface shall be plain and laminated finish to have good look, completed, for finished item of work for SINTEX	1 Sqm	4208

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		OR equivalent PVC CABINETS		
620	TBSC-L.IV-04	Supply and fixing of cupboard shutter using teakwood scantling of size 50 mm x 50 mm teakwood as outer frame and 50 mm x 30 mm of size teakwood for shutter frames, 8mm thick Bison Lam as panel to each shutter consist of 2 Nos 75mm long tower bolt - 2 nos 75 mm big handle the and other shutter will have 1 no of cupboard lack , 1 No of 75 mm long handle and 75 mm x 10mm x 1mm thick SS hinges- 2 Nos for each shutter. The above frame will be fixed to the wall with screws, the rate inclusive of screws, handle, etc., complete at site of work	1 Sqm	4638
621	TBSC-L.IV-05	Supply & erection of open shelves using cement bonded particle board (Bison Panel) confirming to IS 14276 with 20mm thick board for sides & shelves, 8mm back liner with 15 "depth, Each shelf height 12" to 15" with all hardware screws & nails	1 Sqm	2459
M	SECTION	WINDOWS		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	OPENABLE WINDOWS		
622	TBSC-M.I-01	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of - 0.58 mm thick 'D quality, galvanized as per IS 277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm section for mullion 46 x 70 mm, and section for beading 18 x 25 mm panelled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder coated frames fixed to the concrete /masonry wall by means of self-expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Double shutter for sizes 2'0 x 4'0 (609.6 x 1219.2 mm) 3'-0 x 4'-0 (914.4mm x 1219.2 mm) without mullion section	1 Sqm	7540
623	TBSC-M.I-02	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of - 0.58 mm thick 'D quality, galvanized as per IS 277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm section for mullion 46 x 70 mm, and section for beading 18 x 25 mm panelled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder coated frames fixed to the concrete /masonry wall by means of self-expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Double shutter with mullion section for sizes 3'-0 x 4'-0 (914.4mm x 1219.2 mm) and 4'-0 x 4 '-0 (1219.2x1219.2mm)	1 Sqm	7975
624	TBSC-M.I-03	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of - 0.58 mm thick 'D quality, galvanized as per IS	1 Sqm	7757

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm section for mullion 46 x 70 mm, and section for beading 18 x 25 mm panelled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder coated frames fixed to the concrete /masonry wall by means of self-expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Double shutter 4'-0 x 4'-0 (1219.2x1219.2mm) without Mullion section		
625	TBSC-M.I-04	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of 0.58 mm thick 'D' quality, galvanized as per IS 277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm section for mullion 46 x 70 mm, and section for beading 18 x 25 mm panelled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder coated frames fixed to the concrete /masonry wall by means of self-expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Double shutter with Mullion section for sizes 4'-6 x 4'-6 (1371.6x1371.6mm) 5'-0 x 4'-0 (1524x1219.2mm) and 6'-0 x 4'-0 (1828.8x1219.2mm) and 6'-0 x 4'-6 (1828.8x1371.6mm)	1 Sqm	7107
626	TBSC-M.I-05	Providing and fixing of Casement/ Open able Windows made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 48 x 50 mm, centre mullion of 48 x 50 mm, section for shutter of 48 x 25 mm and the fixed glass beading section should be 12 x 12 mm and the outer frame and mullions to have rebate for glazed shutter with a 20 mm provision for guard bars/grills, handle, stay, 2 nos. of stainless steel heavy duty pivot hinges provided per shutter and windows fitted with 5 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self-expanding screws, Including 10mm Square guard bars with 6" (152.4mm) pitch etc., complete Single shutter Window without vertical mullion for size 2'0"x4'0" (609.6mm x 1219.2mm)	1 Sqm	6793
627	TBSC-M.I-06	Providing and fixing of Casement/ Open able Windows made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 48 x 50 mm, centre mullion of 48 x 50 mm, section for shutter of 48 x 25 mm and the fixed glass beading section should be 12 x 12 mm and the outer frame and mullions to have rebate for glazed shutter with a 20 mm provision	1 Sqm	7221

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		for guard bars/grills, handle, stay, 2 nos. of stainless steel heavy duty pivot hinges provided per shutter and windows fitted with 5 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self-expanding screws, Including 10mm Square guard bars with 6" (152.4mm) pitch etc., complete Double shutter Window with vertical mullion for sizes 3'0" x 4'0" (914.4mm x 1219.2mm) and 4'0" x 4'0" (1219.2mm x 1219.2mm)		
628	TBSC-M.I-07	Providing and fixing of Casement/ Open able Windows made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 48 x 50 mm, centre mullion of 48 x 50 mm, section for shutter of 48 x 25 mm and the fixed glass beading section should be 12 x 12 mm and the outer frame and mullions to have rebate for glazed shutter with a 20 mm provision for guard bars/grills, handle, stay, 2 nos. of stainless steel heavy duty pivot hinges provided per shutter and windows fitted with 5 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self-expanding screws, Including 10mm Square guard bars with 6" (152.4mm) pitch etc., complete Centre fixed both side open able shutter window for sizes 5'0"x4'0" (1524mm x1219.2mm) and 6'0"x4'0" (1828.8mm x1219.2mm)	1 Sqm	6363
629	TBSC-M.I-08	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and panelled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self-expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for Single shutter Window 2'0"x4'0" (609.6mm x 1219.2mm)	1 Sqm	9007
630	TBSC-M.I-09	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for	1 Sqm	9436

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and panelled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self-expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for Double shutter Window with vertical mullion of sizes 3'0" x 4'0" (914.4mm x 1219.2mm) and 4'0" x 4'0" (1219.2mm x 1219.2mm)		
631	TBSC-M.I-10	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and panelled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self-expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for Centre fixed both side open able shutter window for a size 5'0"x4'0" (1524mm x1219.2mm).	1 Sqm	8580
632	TBSC-M.I-11	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and panelled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self-	1 Sqm	7507

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for a size 6'0"x4'0" (1828.8mm x1219.2mm)		
633	TBSC-M.I-12	Providing & Fixing of Mesh windows made of pre-painted steel (Base Steel as per IS 513 of 0.58mm thick galvanized as per IS 277 primer coated with epoxy primer finish painted with a polyester paint, section for outer frame of 47 x 36 mm, centre mullion of 60 x 36 mm, section mesh beading 18 x 6 mm and Fly mesh shutter section of 20 x 40 mm, the sections cut to length meter joined with corner bracket and centre mullions fixed with mullion cap, handles, latch, 2 Nos of heavy duty stainless steel pivot hinges per S.S. Mesh for fly mesh shutter (304 grade) including fixing the frames in the concrete/masonry wall by means of self-expanding screws complete for finished item of work.	1 Sqm	5611
634	TBSC-M.I-13	Providing and fixing of Open able / Casement Windows made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 finish painted with a polyester paint and section for outer frame of 80 x 45 mm, centre mullion of 80 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, outer frame and mullions to have rebate for glazed shutter with a provision for guard bars/grills, centre mullion fixed with mullion cap, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self-expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for Single open able shutter window size of 2' 0" x 4' 0" (609.6 x 1219.2mm)	1 Sqm	5990
635	TBSC-M.I-14	Providing and fixing of Open able / Casement Windows made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 finish painted with a polyester paint and section for outer frame of 80 x 45 mm, centre mullion of 80 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, outer frame and mullions to have rebate for glazed shutter with a provision for guard bars/grills, centre mullion fixed with mullion cap, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self-expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for Double open	1 Sqm	6367

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		able shutter window Size of 3' 0" x 4' 0" (914.4mm x 1219.2mm) and 4'0" x 4'0" (1219.2mm x 1219.2mm)		
636	TBSC-M.I-15	Providing and fixing of Open able / Casement Windows made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 finish painted with a polyester paint and section for outer frame of 80 x 45 mm, centre mullion of 80 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, outer frame and mullions to have rebate for glazed shutter with a provision for guard bars/grills, centre mullion fixed with mullion cap, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self-expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for 5'0 x 4'0 (1524 x 1219.2mm) and 6'0 x4'0 (1829.6 x 1219.2mm)	1 Sqm	5611
637	TBSC-M.I-16	Providing and fixing of Open able / Casement Windows with fly mesh made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 100 x 45 mm, centre mullion of 100 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, section for fly-shutter of 52 x 25 mm x 0.6 mm thick and fitted with stainless steel 32 gauge fly mesh of 304 grade and mullions to have double rebate for glazed shutter and fly-shutter with a provision for guard bars/grills and the sections, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self-expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for 2' 0" x 4' 0" (609.6 x 1219.2mm)	1 Sqm	7944
638	TBSC-M.I-17	Providing and fixing of Open able / Casement Windows with fly mesh made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 100 x 45 mm, centre mullion of 100 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, section for fly-shutter of 52 x 25 mm x 0.6 mm thick and fitted with stainless steel 32 gauge fly mesh of 304 grade and mullions to have double rebate for glazed shutter and fly-shutter with a provision for guard bars/grills and the sections, 1 No. of High grade	1 Sqm	8322

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self-expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for 3' 0" x 4' 0" (914.4mm x 1219.2mm) and 4'0" x 4'0" (1219.2mm x 1219.2mm)		
639	TBSC-M.I-18	Providing and fixing of Open able / Casement Windows with fly mesh made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 100 x 45 mm, centre mullion of 100 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, section for fly-shutter of 52 x 25 mm x 0.6 mm thick and fitted with stainless steel 32 gauge fly mesh of 304 grade and mullions to have double rebate for glazed shutter and fly-shutter with a provision for guard bars/grills and the sections, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self-expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for 5'0 x 4'0 (1524 x 1219.2mm) and 6'0 x4'0 (1829.6 x 1219.2mm)	1 Sqm	7566
640	TBSC-M.I-19	Galvanized powder coated Casement Windows with open able shutters duly manufactured using pressed steel sections in mild steel conforming to IS 513 of having 1.0 mm thick and galvanized as per IS 277 of 120 GSM surface treatment with pure polyester powder coating of 30-40 microns thick and section for outer frame of 60x50mm, centre for mullion of 62x50mm, section for shutter of 52 x 22 mm, outer frame and mullions to have one side rebate for glazed shutter of size 24 mm and 10x10 mm square guard bars provided at 125 mm c/c the sections assembled with bolt & nut assembly with zinc-electroplated M-5 bolts, GI Handle of size 80 mm x 15 mm -1 No per shutter, 2 nos of stainless steel heavy duty pivot hinges of size 3 of SS 304 Grade per shutter, window panes with 5 mm thick plain float glass and fixed with glass beading section of 10x12 mm size with 0.8 mm thick powder coated aluminium 'U' channel and window frames fixing to the concrete/masonry wall arrangement with self-expanding screws, complete for finished item of work including of all taxes - 1220 x 1372 or below size	1 Sqm	6786

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
641	TBSC-M.I-20	Galvanized powder coated Casement Windows with open able shutters duly manufactured using pressed steel sections in mild steel conforming to IS 513 of having 1.0 mm thick and galvanized as per IS 277 of 120 GSM surface treatment with pure polyester powder coating of 30-40 microns thick and section for outer frame of 60x50mm, centre for mullion of 62x50mm, section for shutter of 52 x 22 mm, outer frame and mullions to have one side rebate for glazed shutter of size 24 mm and 10x10 mm square guard bars provided at 125 mm c/c the sections assembled with bolt & nut assembly with zinc-electroplated M-5 bolts, GI Handle of size 80 mm x 15 mm -1 No per shutter, 2 nos of stainless steel heavy duty pivot hinges of size 3 of SS 304 Grade per shutter, window panes with 5 mm thick plain float glass and fixed with glass beading section of 10x12 mm size with 0.8 mm thick powder coated aluminium 'U' channel and window frames fixing to the concrete/masonry wall arrangement with self-expanding screws, complete for finished item of work including of all taxes - 1530 x 1372 or above size	1 Sqm	6080
642	TBSC-M.I-21	Galvanized powder coated Casement Windows with open able shutters duly manufactured using pressed steel sections in mild steel conforming to IS 513 of having 1.0 mm thick and galvanized as per IS 277 of 120 GSM surface treatment with pure polyester powder coating of 30-40 microns thick and section for outer frame of 88x50mm, centre for mullion of 62x88 mm, section for glass and fly-proof mesh shutter of 52 x 22 mm, outer frame and mullions to have two sides rebate for glazed shutter of size 24 mm and 10x10 mm square guard bars provided at 125 mm c/c the sections assembled with bolt & nut assembly with zinc-electroplated M-5 bolts, GI Handle of size 80 mm x 15 mm -1 No per shutter, 2 Nos of stainless steel heavy duty pivot hinges of size 3 of SS 304 Grade per shutter, window panes with 5 mm thick plain float glass and fixed with glass beading section of 10x12 mm size with 0.8 mm thick powder coated aluminium 'U' channel and fly-proof mesh of SS 304 grade fixed with 18 mm x 12 mm BT wood beading and window frames fixing arrangement to the concrete/masonry wall with self-expanding screws, complete for finished item of work including of all taxes - 1220 x 1372 or below size	1 Sqm	8527
643	TBSC-M.I-22	Galvanized powder coated Casement Windows with open able shutters duly manufactured using pressed steel sections in mild steel conforming to IS 513 of having 1.0 mm thick and galvanized as per IS 277 of 120 GSM surface treatment with pure polyester powder coating of 30-40 microns	1 Sqm	7839

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		thick and section for outer frame of 88x50mm, centre for mullion of 62x88 mm, section for glass and fly-proof mesh shutter of 52 x 22 mm, outer frame and mullions to have two sides rebate for glazed shutter of size 24 mm and 10x10 mm square guard bars provided at 125 mm c/c the sections assembled with bolt & nut assembly with zinc-electroplated M-5 bolts, GI Handle of size 80 mm x 15 mm -1 No per shutter, 2 Nos of stainless steel heavy duty pivot hinges of size 3 of SS 304 Grade per shutter, window panes with 5 mm thick plain float glass and fixed with glass beading section of 10x12 mm size with 0.8 mm thick powder coated aluminium 'U' channel and fly-proof mesh of SS 304 grade fixed with 18 mm x 12 mm BT wood beading and window frames fixing arrangement to the concrete/masonry wall with self-expanding screws, complete for finished item of work including of all taxes - 1530 x 1372 or above size		
644	TBSC-M.I-23	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) casement windows open able shutters duly manufactured using UPVC reinforced profiles of (48 mm x 60 mm)/ (58 mm x 60 mm) x 2.0 mm for outer frames, (64 mm x 60 mm)/(72 mm x 60mm) x 2.0 mm for mullion sections for two or more open able shutters and (78 mm x 60 mm)/(72 mm x 42 mm) x 2.0 mm for outward open able shutter frame or (70 mm x 60 mm)/ (72 mmx 42 mm) x 2.0 mm for inward open able shutter frame capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with TPV Gaskets/ EPDM weathering seal resistant accessories for casement window - friction stay hinges of stainless steel grade 304- 2 Nos., per sash, handle with mazak alloy casting 1 No. per sash, locking system suitably concealed 1 No., per sash provided with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	6275
645	TBSC-M.I-24	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) casement windows openable shutters duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of	1 Sqm	7521

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		PVC resin) of 60 mm x 55 mm x 2.40 mm for outer frames, 74 mm x 60 mm x 2.40 mm for mullion sections for two or more openable shutters 75 mm x 60 mm x 2.40 mm for openable shutter frame capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC and accessories for casement window - friction hinges of stainless steel grade 304/430- 2 Nos., per sash, handle with mazak alloy casting 1 No. per sash, multipoint locking system suitably concealed 1 No., per sash provided with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.		
646	TBSC-M.I-25	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) casement windows openable shutters duly manufactured using UPVC reinforced profiles of 60 mm x 60 mm x 2.60 mm for outer frames, 82 mm x 60 mm x 2.60 mm for Fix mullion ("T" or "Z")made of 60mm x 82mm uPVC profile section with steel reinforcement of size 35mm x 28mm x 1.5mm shall be provided in windows having fixed panel as per the requirement. The shutter of outward open able window shall be made of size 60mm x 77mm or for inward open able window shall be made of size 60mm x 78mm; "T" shaped for outward open, or "Z" shaped for Inward open extruded 3 box multi-chamber uPVC window profile section of white colour having outer wall thickness of 2.6mm (± 0.2mm) provided with reinforcement of minimum 1.5mm thick G/J/U/S/O type GI section prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC and accessories for casement window - friction hinges of stainless steel grade 304- 2 Nos., per sash, handle 1 No. per sash, multipoint locking system suitably concealed 1 No., per sash provided with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and	1 Sqm	7739

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.		
		Supply and fixing of Pre-Laminated Cement Bonded Particle Board (as per IS-14276) WINDOWS with Pre-Painted Steel Sections fabricated from pre-painted Cold rolled formed sections made of galvanized steel colour coated sections {Base steel as per 15-512 quality, galvanized as per IS-277 with Zinc of 120 gram/sqm) with total coated thickness of 0.58mm primer coated with epoxy primer of 5-7 microns thick, finish painted with polyester paint of 12-16 microns and back coated with alkyd backer of 5-7 microns), the sections for outer frame and centre mullion (duly filled with PU foam of 40 kg/Cum) should be of 60mm x 50mm, with provision for fixing glazed shutter. The section for glazed/panelled shutter should be of size 48mm x 25 mm and another section of size 60mm x 23mm should be provided for separating glazed and panelled portion 5 mm thick colour pin headed glass is to be provided for glazing and providing guard bars of 10mm square rods duly welded at 150mm pitch to MS flat section of size 18mm and 3mm thick. Windows are to be fixed to wall by means of self-expansion nylon Cap (75) and electroplated wooden screws of size 100mm, including aluminium powder coated fittings, A) 75mm long grip handles 1 no per shutter, B) 75 mm long tower bolts 2 nos. per shutter, C) Heavy duty 55 Pivot hinges 2 nos per shutter, D) MS Powder coated telescopic stay 1no per shutter.		
647	TBSC-M.I-26	Pre-Laminated Cement Bonded Particle Board (as per IS-14276) WINDOWS WITH PPS SECTIONS – Single shutter 2'0"x4'0" outer frame section size of 50mm x 60mm shutter frame section size of 48mm x 25mm	1 Sqm	8024
648	TBSC-M.I-27	Pre-Laminated Cement Bonded Particle Board (as per IS-14276) WINDOWS WITH PPS SECTIONS – Double shutter 3'0" x 4'0" outer frame section size of 50mm x 60mm shutter frame section size of 48mm x 25mm mullion section size of 50mm x 60mm for outer frame	1 Sqm	8024
649	TBSC-M.I-28	Pre-Laminated Cement Bonded Particle Board (as per IS-14276) WINDOWS WITH PPS SECTIONS – Double shutter 3'0" x 3'0" outer frame section size of 50mm x 60mm shutter frame section size of 48mm x 25mm Mullion section size of 50mm x 60mm for outer frame.	1 Sqm	8024
650	TBSC-M.I-29	Pre-Laminated Cement Bonded Particle Board (as per IS-14276) WINDOWS WITH PPS SECTIONS – Double shutter 4'0"x4'0" outer frame section size of 50mm x 60mm shutter frame section size of 48mm x 25mm Mullion section size of 50mm x 60mm for outer frame.	1 Sqm	8024

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
651	TBSC-M.I-30	Cement Bonded Particle Plank - Bison Planks- 8 mm - Available size - 150 mm X 2440 mm and 200 mm X2440mm	1 Sqm	653
652	TBSC-M.I-31	Cement Bonded Particle Plank - Bison Planks - 10 mm - Available size - 150 mm X 2440 mm and 200 mm X2440mm	1 Sqm	800
653	TBSC-M.I-32	Cement Bonded Particle Plank - Bison Planks - 12 mm - Available size - 150 mm X 2440 mm and 200 mm X2440mm	1 Sqm	979
654	TBSC-M.I-33	Cement Bonded Particle Board Conforming to Is 14276 - 18 Mm Thick	1 Sqm	790
655	TBSC-M.I-34	Pre-Laminated Cement Bonded Particle Board (Bison Lam) Conforming to Is 15786 - 18 Mm Thick	1 Sqm	1121
656	TBSC-M.I-35	Cement Bonded Particle Designer Board (Bison Panel- Is 14276) Available Designs 1. Lumber 2. Quadra 3. Murk, Standard Size 8'x4' - 6mm Thickness	1 Sqm	309
657	TBSC-M.I-36	Cement Bonded Particle Designer Board (Bison Panel- Is 14276) Available Designs 1. Lumber 2. Quadra 3. Murk, Standard Size 8'x4' - 8 Mm Thickness	1 Sqm	373
658	TBSC-M.I-37	Cement Bonded Particle Designer Board (Bison Panel- Is 14276) Available Designs 1. Lumber 2. Quadra 3 Murk, Standard Size 8'x4'- 10mm Thickness	1 Sqm	468
659	TBSC-M.I-38	Cement Bonded Particle Designer Board (Bison Panels 14276) Available Designs 1. Lumber 2. Quadra 3. Murk, Standard Size 8'x4'- 12mm Thickness	1 Sqm	574
660	TBSC-M.I-39	Cement Bonded Particle Designer Board (Bison Panel s 14276) Available Designs 1. Lumber 2. Quadra 3. Murk, Standard Size 8'x4' 16mm Thickness	1 Sqm	756
661	TBSC-M.I-40	50 mm Thick wall panels (sandwich wall panels) with 5 mm thick Cement bonded particle boards Facings and light weight EPS concrete as core materials.	1 Sqm	837
662	TBSC-M.I-41	75 mm Thick wall panels (sandwich wall panels) with 5 mm thick Cement bonded particle boards Facings and light weight EPS concrete as core materials	1 Sqm	1255
663	TBSC-M.I-42	100 mm Thick wall panels (sandwich wall panels) with 5mm thick Cement bonded particle boards Facings and light weight EPS concrete as core materials.	1 Sqm	1882
II	SUB-SECTION	SLIDING WINDOWS		
664	TBSC-M.II-01	Providing and fixing 2 Track 2 glass shutter sliding Windows fabricated from roll formed sections made of Galvanized Steel Colour Coated/ Powder Coated (Base Steel as per IS 513 "D" quality, Galvanized as per IS 277 with Zinc of 120 GM/Sq.mtr) with total coated thickness of 0.58 mm. Primer coat with epoxy primer of 5-7 micron thick, finish painted with polyester paint of 12-16 microns thick and back coated with alkyd backer of 5-7 microns or Powder Coated with pure	1 Sqm	8097

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Polyester Powder up to 50-60 microns thick. Section for external frame should be of 44 x 59mm, Section for glass shutter should be of 35 x 49 mm Section for euro groove should be 25 x 24mm(Aluminium/Plastic)and Lap Strip should be of 30 x 41mm(Aluminium/Plastic).shutter should be provided with a glass of 5mm Plain Float Glass. Corner bracket for External frame made of Steel/Polypropylene, Corner Bracket for Internal frame made of Steel/Polypropylene, Touch Lock, Rollers, wool pile for lap strip & euro groove, Bump Stop Base & Rubber for shutter stopper. Ethyl Propylene Diamine Monomer (EPDM) Gasket should be used all around glass in shutter. The Frame Section should be cut to length and mitre joined with Corner brackets & Shutter Sections should be cut to length and mitre joined with Corner Bracket. Window Frame should be fixed to brick/ concrete masonry by using Nylon self-expanding caps and driving MS electroplated 80mm long screws into the caps through frames.10mm square guard bars with 6" pitch (152.4mm) max to be fixed wall to wall and all taxes complete for finished item of work		
665	TBSC-M.II-02	Providing and fixing of Two shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 with powder coated with Pure polyester powder up to 50-60 microns thick with total coated thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, the Outer Frame for Two Tracks without grill provision is of 75 mm x 50 mm and the Window Shutter section of 58 mm x 36 mm and the outer Frame with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for Window with Two Sliding Shutters and without Grill	1 Sqm	5657
666	TBSC-M.II-03	Providing and fixing of Two shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 with powder coated with Pure polyester powder up to 50-60 microns thick with total coated thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, the Outer Frame for Two Tracks with Grill provision size of 90 mm x 50 mm	1 Sqm	6273

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		and the Window Shutter section of 58 mm x 36 mm and the outer Frame with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for Window with Two Sliding Shutters and with Grill		
667	TBSC-M.II-04	Providing and fixing of Three shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 powder coated with Pure polyester powder and thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter and including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for i) Centre Shutter Fixed: centre shutter frame made of section with size 20mm x 47mm should be fitted with 5mm thick plain float glass of reputed make, EPDM gasket all around the glass and fixed to the Outer Frame with the supporting section of size 29mm x 20mm of 0.58mm thick fixed horizontally on top and bottom of the shutter frame.	1 Sqm	6626
668	TBSC-M.II-05	Providing and fixing of Three shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 powder coated with Pure polyester powder and thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of	1 Sqm	7256

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Aluminium 1 No. per each shutter and including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for ii) Centre Shutter Sliding: centre shutter frame made of section of size 20mm x 47mm should be fitted with 5 mm thick plain float glass of reputed make. The supporting guide section of size 15mm x 19mm of 0.58mm thick fixed horizontally at top and bottom of shutter frame and slides along the bottom and top guide tracks made of sections size 24mm x 20mm of 0.58mm thick and 29mm x 20mm of 0.58mm thick and iii) Centre Fly mesh Shutter Sliding: Section for Fly mesh Shutter frame should be of size 20mm x 40mm of 0.58mm thick and fitted with SS mesh (304 Grade). The supporting guide section of size 29mm x 20mm of 0.58mm thick at the bottom and 15mm x 19mm of 0.58mm thick at the top fixed horizontally to the Fly mesh frame and slides along the bottom and top guide tracks made of sections size 20mm x 20mm of 0.58mm and 29mm x 20mm of 0.58mm.		
669	TBSC-M.II-06	Providing and fixing of Three shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 powder coated with Pure polyester powder and thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter and including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for Window with 3 shutters (Centre fixed shutter / Centre sliding shutter / centre Fly mesh shutter) and without Grill Window made of Outer Frame of size 90mm x 50mm. i) Centre Shutter Fixed: centre shutter frame made of section with size 20mm x 47mm of 0.58mm thick should be fitted with 5mm thick plain float glass of reputed make, EPDM gasket all around the glass and fixed to the Outer Frame with the supporting section of size 29mm x 20mm of 0.58mm thick fixed horizontally on top and bottom of the	1 Sqm	5942

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		shutter frame.		
670	TBSC-M.II-07	Providing and fixing of Three shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 powder coated with Pure polyester powder and thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter and including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for Window with 3 shutters (Centre fixed shutter / Centre sliding shutter / centre Fly mesh shutter) and without Grill Window made of Outer Frame of size 90mm x 50mm. ii) Centre Shutter Sliding: centre shutter frame made of section with size 20mm x 47mm of 0.58mm thick should be fitted with 5 mm thick plain float glass of reputed make. The supporting guide section of size 15mm x 19mm of 0.58mm thick fixed horizontally at top and bottom of shutter frame and slides along the bottom and top guide tracks made of sections size 24mm x 20mm of 0.58mm thick and 29mm x 20mm of 0.58mm thick.	1 Sqm	6502
671	TBSC-M.II-08	Providing and fixing of Three shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 powder coated with Pure polyester powder and thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter and including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for Window with 3 shutters (Centre fixed shutter / Centre sliding shutter / centre Fly mesh shutter) and without Grill Window made of Outer Frame of size 90mm x 50mm. iii) Centre Fly	1 Sqm	6502

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		mesh Shutter Sliding: Section for Fly mesh shutter frame should be of size 20mm x 40mm and fitted with SS mesh (304 Grade). The supporting guide section of size 29mm x 20mm of 0.58mm thick at the bottom and 15mm x 19mm of 0.58mm thick at the top fixed horizontally to the Fly mesh frame and slides along the bottom and top guide tracks made of sections size 20mm x 20mm of 0.58mm thick and 29mm x 20mm of 0.58mm thick.		
672	TBSC-M.II-09	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 2 Track-2 Panel Sliding windows duly manufactured using UPVC reinforced profiles(Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of (62 mm x 60 mm)/(60 mm x 45 mm) x 2.20 mm for outer frames, (66 mm x 38 mm)/(58 mm x 39 mm) x 2.20 mm for sliding shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	6818
673	TBSC-M.II-10	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 3 track sliding windows with mesh shutter provision - (only 2-glass shutters) duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of (80 mm x 52 mm)/ (94 mm x 45 mm) x 2.20 mm for outer frames, (54 mm x 38 mm)/(39 mm x 58 mm) x 2.20 mm for sliding shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including	1 Sqm	6396

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work		
674	TBSC-M.II-11	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 3 track sliding windows with mesh shutter - (2-glass shutters and 1-mesh shutter) duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO ₂ and not more than 12 PHR of CaCo ₃ for every 100 parts of PVC resin) of (94 mm x 45 mm)/(80 mm x 52 mm) x 2.20 mm for outer frames, (58 mm x 39 mm)/(54 mm x 38 mm) x 2.20 mm for sliding shutter frames capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make and mesh shutter frame shall be (42 mm x 25 mm)/(52 mm x 21.5 mm) x 2.0 mm fitted with Vinyl Coated Fibre mesh- on rollers/ pulley duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	7119
675	TBSC-M.II-12	DELETED		
676	TBSC-M.II-13	Providing and Fixing Pre painted Steel Sliding Windows / Doors - 3 track sliding window /doors shutter with mesh shutter - (2 - glass shutters and 1 - mesh shutter) fabricated from Roll formed sections made of galvanized Steel colour coated/powder coated (Base Steel as per IS 513 'D' quality, galvanized as per IS 277 with zinc of 120 GM/Sq.mtr) with total coated thickness of 0.58mm. Primer coat with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick and back coated with Alkyd backer of 5-7 microns or powder coated with pure polyester powder up to 50-60 microns thick. Section for external frame should be of 44 x 107mm .Section for glass shutter and mesh shutter in case of door should be of 35 x 67 mm Section for euro groove should be 25 x 31mm (Aluminium/ Plastic) (in case of window sections should be 35 x 49 mm and 25 x 24 mm and 30 x 41 mm) and Lap Strip should be of 39 x 41mm (30 x 41 mm & Touch lock for window) (Aluminium/ Plastic. The doors/ windows should be panelled with 5mm thick plain float glass.	1 Sqm	8951

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Corner bracket for internal and external frame made of glass filled nylon. Gaskets are to be made of Ethyl Propylene Diamine Monomer (EPDM).The sections are to be cut to length, joined and assembled by means of corner bracket. The above frames should be fixed to the concrete/masonry walls by means of self-expanding brackets & screws including 10mm square guard bars with 6" pitch (152.4mm) (in case of windows only) and all Taxes complete for finished item of work.		
677	TBSC-M.II-14	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 2 Track-2 Panel Sliding windows duly manufactured using UPVC reinforced profiles of 60 mm x 49 mm x 2.20 mm for outer frames, 62 mm x 41 mm x 2.20 mm for sliding shutter frames capable of mounting single glazing system, structurally reinforced with 30 mm 15 mm x 1.5 mm with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	7013
678	TBSC-M.II-15	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 2 Track-2 Panel Sliding windows with mesh duly manufactured using UPVC reinforced profiles of 91 mm x 49 mm x 2.20 mm for outer frames, 62 mm x 41 mm x 2.20 mm for sliding shutter frames capable of mounting single glazing system, structurally reinforced with 30 mm 15 mm x 1.5 mm with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm and the shutter of fly screen with fibre mesh shall be made of size 21mm x 58mm extruded uPVC window profile section of white colour having outer wall thickness of 2.2mm ($\pm$ 0.3mm) provided with reinforcement of minimum 1.5mm thick G/J/U/S/O type GI section duly mitred cut and thermal welded at all corners and prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including	1 Sqm	8118

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.		
III	SUB-SECTION	VENTILLATORS		
679	TBSC-M.III-01	Supply and fixing of pre-painted steel top hung and fixed louvered ventilators made of pre - painted steel as per IS 513 of -0.58 mm thick 'D' quality, galvanized as per IS 277, finish painted with a polyester paint & 4 mm pinhead glass for ventilators with EPDM Gasket with handle made of high grade aluminium powder coated and nylon receiver, corner brackets made of CRCA with Zinc Phosphate, Mullion caps made of glass filled nylon, frames fixed to the concrete /masonry wall by means of self-expanding screws including 10 mm square guard bars with 6 pitch complete for finished item of work for (i) Ventilators: Top Hung 2'-0" x 2'-0" (609.6x609.6mm) outer frame section size of 46mm x 52 mm shutter frame section size of 46mm x 46 mm and (ii) Ventilators: Top Hung 4'-0" x 2'-0" (1219.2x609.6mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm and (iii) Ventilators: Top Hung 4'-0" x 3'-0" (1219.2x914.4mm) outer frame section size of 46 x 52mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm	1 Sqm	8268
680	TBSC-M.III-02	Supply and fixing of pre-painted steel top hung and fixed louvered ventilators made of pre - painted steel as per IS 513 of -0.58 mm thick 'D' quality, galvanized as per IS 277, finish painted with a polyester paint & 4 mm pinhead glass for ventilators with EPDM Gasket with handle made of high grade aluminium powder coated and nylon receiver, corner brackets made of CRCA with Zinc Phosphate, Mullion caps made of glass filled nylon, frames fixed to the concrete /masonry wall by means of self-expanding screws including 10 mm square guard bars with 6 pitch complete for finished item of work for (i) Ventilators: Fixed louvers 2'-0" x 2'-0" (609.6x609.6mm)(Box section) outer frame section size of 33 x 56 mm and (ii) Ventilators: Fixed louvers 4'-0" x 2'-0" (1219.2 x 609.6 mm) (Box section) outer frame section size of 33 x 56 mm Mullion section size of 33 x 56 mm and (iii) Ventilators: Fixed louvers 4'-0" x 3'-0" (1219.2 x 914.4 mm) (Box section) outer frame section size of 33 x 56 mm Mullion section size of 33 x 56 mm	1 Sqm	5655
681	TBSC-M.III-03	Providing and fixing of top hung Ventilators made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 with a polyester paint with 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges	1 Sqm	7186

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		provided per shutter and fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self-expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for finished item of work for (i) Single open able ventilator shutter size of 2' 0" x 2' 0" (609.6 x 609.6mm) outer frame section size of 80 x 45mm, shutter frame section size of 52 x 25mm thick and (ii) Double open able ventilator shutter Size of 4' 0" x 2' 0" (1219.2mm x 609.6mm) outer frame section size of 80 x 45mm, shutter frame section size of 52 x 25mm, vertical mullion section size of 80 x 60 mm and (iii) Double open able fix shutter size of 4'0" x 3'0" (1219.2mm x 914.4mm) outer frame section size of 80 x 45mm , shutter frame section size of 52 x 25 mm , Vertical mullion section size of 80 x 60 mm		
682	TBSC-M.III-04	Providing and fixing of louvered Ventilators made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 with a polyester paint with and fitted with 4 mm thick plain float glass including fixing the frames in concrete/masonry wall by means of self-expanding screws, etc., complete for finished item of work for (i) Single fixed Louvers Ventilator size of 2' 0" x 2' 0" (609.6 x 609.6mm) outer frame box section size of 80 x 45mm and (ii) Double fixed Louvers ventilator Size of 4' 0" x 2' 0" (1219.2mm x 609.6mm) outer frame box section size of 80 x 45mm, vertical mullion section size of 80 x 60 mm and (iii) Double fixed Louvers Ventilator size of 4'0" x 3'0" (1219.2mm x 914.4mm) outer frame box section size of 80 x 45mm , Vertical mullion section size of 80 x 60 mm	1 Sqm	4921
683	TBSC-M.III-05	Providing and fixing of top hung Ventilator with fly mesh made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 with Zinc, finish painted with a polyester paint, section for fly-shutter of 0.6 mm thick and fitted with stainless steel 32 gauge fly mesh of 304 grade and mullions to have double rebate for glazed shutter and fly-shutter with a provision for guard bars/grills and 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self-expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for finished item of work for (i) Single open able ventilator shutter window size of 2' 0" x 2' 0" (609.6 x 609.6mm)	1 Sqm	8889

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		outer frame section size of 100 x 45mm, Glazed and fly mesh shutter frame section size of 52 x 25mm thick and (ii) Double open able ventilator shutter window Size of 4' 0" x 2' 0" (1219.2mm x 609.6mm) outer frame section size of 100 x 45mm, Glazed and fly mesh shutter frame section size of 52 x 25mm, vertical mullion section size of 100 x 60 mm and (iii) Double open able fix shutter window size of 4'0" x 3'0" (1219.2mm x 914.4mm) outer frame section size 100 x 45mm , Glazed and fly mesh shutter frame section size 52 x 25 mm ,Vertical mullion section size of 100 x 60 mm		
684	TBSC-M.III-06	Providing and fixing of top hung Ventilator with fly mesh made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 with Zinc, finish painted with a polyester paint, section for fly-shutter of 0.6 mm thick and fitted with stainless steel 32 gauge fly mesh of 304 grade and mullions to have double rebate for glazed shutter and fly-shutter with a provision for guard bars/grills and 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self-expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for finished item of work for (i) Single fixed Louvers Ventilator window size of 2' 0" x 2' 0" (609.6 x 609.6mm) outer frame box section size of 100 x 45mm, fly mesh shutter frame section size 52 x 25 mm and (ii) Double fixed Louvers ventilator window Size of 4' 0" x 2' 0" (1219.2mm x 609.6mm) outer frame box section size of 100 x 45mm, fly mesh shutter frame section size 52 x 25 mm, vertical mullion section size of 100 x 60 mm and (iii) Double fixed Louvers Ventilator window size of 4'0" x 3'0" (1219.2mm x 914.4mm) outer frame box section size 100 x 45mm , fly mesh shutter frame section size 52 x 25 mm Vertical mullion section size of 100 x 60 mm	1 Sqm	5990
685	TBSC-M.III-07	Providing, supplying & fixing of Fixed Louvered Ventilator made from multi chambered uPVC sections with Glazing bead shall be co-extruded with Grey colour soft PVC. having isolated drainage and reinforced with Galvanized Iron profiles throughout the window. The outer frame having an overall size of 60 mm x 55 mm x 2.40 with reinforcement of 1 mm thickness and Mullion with overall size of 74 mm x 60 mm x 2.40 mm with reinforcement of 1 mm thickness. (Composition of profile shall consists of a minimum of 5.5 PHR of TiO2 and not more than	1 Sqm	6407

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		12 PHR of CaCo3 for every 100 parts of PVC resin).Ventilator shall be provided with 4.5 mm Pin Head glass, standard hardware. Wall thickness of frame & Mullion shall be 2.4 mm., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.		
686	TBSC-M.III-08	Providing, supplying & fixing of Top hung Ventilator With Exhaust Fan Provision made from multi chambered uPVC sections with TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC and reinforced with Galvanized Iron profiles throughout the window. The outer frame having an overall size of 60mm x 55 mm x 2.40 mm with reinforcement of 1 mm thickness, Mullion with overall size of 74 mm x 60 mm x 2.40 mm with reinforcement of 1 mm thickness and Sash with overall size of 75 mm x 60 mm x 2.40 mm with reinforcement of 1.0/1.2 mm thickness. (Composition of profile shall consists of a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin).Glazing bead for fixing of glass shall be of size 34 x 20 mm coextruded with soft PVC gasket. Ventilator shall be provided with 4.5 mm Pin Head glass, standard hardware, single point locking using cockspur handle and friction stays. Wall thickness of frame, mullion and sash shall be 2.4 mm., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	9014
687	TBSC-M.III-09	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 13 of 0.72 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and panelled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self-expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for Double shutter Window with vertical mullion of sizes 3'0" x 4'0" (914.4mm x 1219.2mm) and 4'0" x 4'0" (1219.2mm x 1219.2mm)	1 Sqm	11521
688	TBSC-M.III-10	Providing & Fixing of Open able Windows with	1 Sqm	10476

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Fly-mesh made of pre-painted steel as per IS 513 of 0.72 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and panelled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self-expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for Centre fixed both side open able shutter window for a size 5'0"x4'0" (1524mm x1219.2mm).		
689	TBSC-M.III-11	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 513 of 0.72 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and panelled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self-expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , Centre fixed both side open able shutter window for a complete for a size 6'0"x4'0" (1828.8mmx1219.2mm)	1 Sqm	9165
690	TBSC-M.III-12	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of - 0.72 mm thick 'D quality, galvanized as per IS 277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm section for mullion 46 x 70 mm, and section for beading 18 x 25 mm panelled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder coated frames fixed to the concrete /masonry wall by means of self-expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Double shutters with mullion section for sizes 3'-0 x 4'-0 (914.4mm x 1219.2 mm) and 4'-0 x 4 '-0 (1219.2 x 1219.2mm) Three	1 Sqm	9601

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		shutters with mullion section for sizes and 5'-0 x 4'-0(1524 x 1219.2mm) and 6'-0 x 4'-0(1828.8 x 1219.2mm)		
691	TBSC-M.III-13	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of - 0.72 mm thick 'D' quality, galvanized as per IS 277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm section for mullion 46 x 70 mm, and section for beading 18 x 25 mm panelled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder coated frames fixed to the concrete /masonry wall by means of self-expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Centre Fixed with sides openable windows Mullion section for sizes:5'-0 x 4'-0 (1524x1219.2mm) and 6'-0 x 4'-0 (1828.8x1219.2mm) and 6'-0 x 4'-6 (1828.8x1371.6mm)	1 Sqm	8556
N	SECTION	STRUCTURAL GLAZING & CURTAIN WALLING		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	FIXED GLAZING		
692	TBSC-N.I-01	Supplying and fixing of curtain Glazing made of pre painted steel as per IS 513 of 0.58 mm thick D quality, galvanized as per IS 277 Primer coated with epoxy, finish painted with a polyester paint using the section for outer frame of 46 x 52 mm, section for mullion of 46 x 70 mm and section for beading of 18 x 25 mm and the glazing with 5 mm thick plain float glass fitted with EPDM gaskets including handle made of high grade Aluminium powder coated and nylon receiver, corner brackets made of CRCA with zinc phosphating, mullion caps made of Glass filled nylon including fixing the frames in the concrete / masonry wall with self-expanding screws, etc., complete for finished item.- Fixed Glazing 2'-0 x 2'-0 (609.6x609.6mm) and Fixed Glazing 2'-0 x 3'-0 (609.6x914.4mm)	1 Sqm	7177
693	TBSC-N.I-02	Supplying and fixing of curtain Glazing made of pre painted steel as per IS 513 of 0.58 mm thick D quality, galvanized as per IS 277 Primer coated with epoxy, finish painted with a polyester paint using the section for outer frame of 46 x 52 mm, section for mullion of 46 x 70 mm and section for beading of 18 x 25 mm and the glazing with 5 mm thick plain float glass fitted with EPDM gaskets including handle made of high grade Aluminium powder coated and nylon receiver, corner brackets made of CRCA with zinc phosphating, mullion caps made of Glass filled nylon including fixing the frames in the concrete / masonry wall with self-expanding screws, etc., complete for finished item.- Fixed Glazing 3'-0 x 3'-0	1 Sqm	6090

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		(914.4x914.4mm) and Fixed Glazing 3'-0 x 4'-0 (914.4x1219.2mm)		
694	TBSC-N.I-03	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) Fixed Glazing - 48 series duly manufactured using UPVC reinforced profiles of 60 mm x 48 mm x 2.25 mm for outer frames and the mullion sections are of 60 mm x 76 mm x 2.25 mm frames are structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm the sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal resistant including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	3143
695	TBSC-N.I-04	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) Fixed Glazing duly manufactured using UPVC reinforced profiles of 60 mm x 56 mm x 2.25 mm for outer frames and the mullion sections are of 60 mm x 70 mm x 2.25 mm frames are structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm the sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal resistant including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	3756
696	TBSC-N.I-05	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) Fixed Glazing/ Window duly manufactured using UPVC reinforced profiles of 60 mm x 60 mm x 2.60 mm for frames and the mullion sections are of 60 mm x 82 mm x 2.60 mm frames are structurally reinforced with hot dip galvanized up to 50 microns of size 35 mm x 28 mm of thickness 1.5 mm the sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal resistant and glazing bead 34.5 mm x 18 mm including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	4710
II	SUB-SECTION	STRUCTURAL GLAZING		
697	TBSC-N.II-01	Providing and fixing Structural Glazing fabricated from Roll formed sections made of Pre-painted Steel / Powder coated base steel as per IS 513 of 'D' quality, galvanized as per IS 277 and the glass holding section made of 304 grade stainless steel of 0.58 mm thick galvanized steel section as stiffeners inside the colour coated steel powder coated sections as per the design requirement & calculations to suit wind pressures as given in IS: 875, the primer coat with epoxy primer, finish	1 Sqm	8580

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		painted with a polyester paint or powder coated with pure polyester powder and the vertical section of 50 mm x 99 mm x 0.72 mm, 33 mm x 56 mm x 0.72 mm for frame horizontal section, stiffener section of 47 mm x 97 mm x 1 mm, cover profiles sections of 20 mm x 58 mm x 0.58 mm, glass holding section of 37 mm x 37 mm & 37 mm x 18 mm including fixing 5mm thick Ocean Blue reflective glass, brackets made of CRCA powder coated/Electroplated to connect vertical to horizontal, vertical to slab, to fix verticals at top & bottom as per site requirement and EPDM gasket, U.V. resistant silicon sealant including fixing in concrete/masonry wall with self-expanding cap & screws inclusive of cost and conveyance of all materials to site, all labour charges, incidental charges, cost of all consumables etc. and fixing charges excluding scaffolding complete for finished item of work.		
698	TBSC-N.II-02	Providing and fixing Top Hung shutters in Structural Glazing fabricated from Roll formed sections made of Pre-painted Steel / Powder coated base steel as per IS 513 of 'D' quality, galvanized as per IS 277 and the glass holding section made of 304 grade stainless steel of 0.58 mm thick, duly providing stiffeners inside the colour coated steel/powder coated sections as per the design requirement, calculations to suit wind pressures as given in IS 875 and primer coat with epoxy primer and powder coated with pure polyester powder up to 50-60 microns thick and the outer frame of 20 mm x 58 mm x 0.58 mm, shutter sections of 57 mm x 33 mm x 0.72 mm, stiffener sections of 55 mm x 31 mm x 1mm, hinges - 2 Nos for each shutter and aluminium Stays - 2 Nos. for each shutter, aluminium Handle - 1 no. for each shutter including cost and conveyance of all materials to site, all labour charges, incidental charges, cost of all consumables etc. and fixing charges etc excluding scaffolding complete for finished item of work	1 Sqm	7031
III	SUB-SECTION	CURTAIN WALLING		
699	TBSC-N.III-01	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) Curtain Walling systems duly manufactured using UPVC reinforced profiles of 60 mm x 56 mm x 2.5 mm for outer frames, 60 mm x 70 mm x 2.5 mm for casement shutter frames and the mullion sections are of 60 mm x 70 mm x 2.5 mm or 60 mm x 62 mm x 2.5 mm for sliding shutter outer frames and 77 mm x 38 mm x 2.5 mm for sliding shutter frames structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1 mm the sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering	1 Sqm	6694

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		seal resistant and accessories for casement window - friction stay hinges of stainless steel grade 304- 2 Nos., per sash, handle with mazak alloy casting 1 No. per sash, multipoint locking system suitably concealed 1 No., per sash provided with raiser wedges for smooth operation for sliding window - clipping locking system 1 No. made of aluminium including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing excluding scaffolding complete for finished item of work		
P	SECTION	FIXTURES FOR DOORS & WINDOWS		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	TOWER BOLTS		
700	TBSC-P.I-01	Brass Tower Bolt-10 mm Bolt (IS:204) 100 mm Long	Each	191
701	TBSC-P.I-02	Brass Tower Bolt-10 mm Bolt (IS:204) 150 mm Long	Each	278
702	TBSC-P.I-03	Brass Tower Bolt-10 mm Bolt (IS:204) 200 mm Long	Each	371
703	TBSC-P.I-04	Brass Tower Bolt-10 mm Bolt (IS:204) 250 mm Long	Each	461
704	TBSC-P.I-05	Brass Tower Bolt-10 mm Bolt (IS:204) 300 mm Long	Each	567
705	TBSC-P.I-06	Aluminium Tower Bolt-10 mm Bolt (IS:204) 75 mm Long	Each	53
706	TBSC-P.I-07	Aluminium Tower Bolt-10 mm Bolt (IS:204) 100 mm Long	Each	60
707	TBSC-P.I-08	Aluminium Tower Bolt-10 mm Bolt (IS:204) 150 mm Long	Each	79
708	TBSC-P.I-09	Aluminium Tower Bolt-10 mm Bolt (IS:204) 200 mm Long	Each	94
709	TBSC-P.I-10	Aluminium Tower Bolt-10 mm Bolt (IS:204) 250 mm Long	Each	114
710	TBSC-P.I-11	Aluminium Tower Bolt-10 mm Bolt (IS:204) 300 mm Long	Each	130
711	TBSC-P.I-12	Aluminium Tower Bolt-10 mm Bolt (IS:204) 350 mm Long	Each	340
712	TBSC-P.I-13	Aluminium Tower Bolt-10 mm Bolt (IS:204) 450 mm Long	Each	443
713	TBSC-P.I-14	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 100 mm Long	Each	30
714	TBSC-P.I-15	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 150 mm Long	Each	42
715	TBSC-P.I-16	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 200 mm Long	Each	62
716	TBSC-P.I-17	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 250 mm Long	Each	80
717	TBSC-P.I-18	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 300 mm Long	Each	100
718	TBSC-P.I-19	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833) 75 mm Long	Each	99
719	TBSC-P.I-20	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833)	Each	114

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		100 mm Long		
720	TBSC-P.I-21	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833) 150 mm Long	Each	173
721	TBSC-P.I-22	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833) 200 mm Long	Each	228
722	TBSC-P.I-23	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833) 250 mm Long	Each	285
723	TBSC-P.I-24	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833) 300 mm Long	Each	340
II	SUB-SECTION	HINGES		
724	TBSC-P.II-01	Brass Butt hinges (IS:205)- 75 mm Long	Each	79
725	TBSC-P.II-02	Brass Butt hinges (IS:205)- 100 mm Long	Each	257
726	TBSC-P.II-03	Brass Butt hinges (IS:205)- 125 mm Long	Each	312
727	TBSC-P.II-04	Brass Butt hinges (IS:205)- 150 mm Long	Each	411
728	TBSC-P.II-05	Aluminium Butt hinges (IS:205)- 75 mm Long	Each	60
729	TBSC-P.II-06	Aluminium Butt hinges (IS:205)- 100 mm Long	Each	77
730	TBSC-P.II-07	Aluminium Butt hinges (IS:205)- 125 mm Long	Each	92
731	TBSC-P.II-08	Aluminium Butt hinges (IS:205)- 150 mm Long	Each	110
732	TBSC-P.II-09	MS-Powder Coated Butt hinges (IS:205)- 75 mm Long	Each	14
733	TBSC-P.II-10	MS-Powder Coated Butt hinges (IS:205)- 100 mm Long	Each	26
734	TBSC-P.II-11	MS-Powder Coated Butt hinges (IS:205)- 125 mm Long	Each	38
735	TBSC-P.II-12	MS-Powder Coated Butt hinges (IS:205)- 150 mm Long	Each	47
736	TBSC-P.II-13	Deluxe window stay Aluminium	Each	156
737	TBSC-P.II-14	Brass Windows Stay	Each	241
738	TBSC-P.II-15	GI Powder Coated Friction stay hinges of 10" Long for windows	Each	248
739	TBSC-P.II-16	Continuous Piano Hinges Powder coated Mild steel as per IS-3818 : 1992 of nominal size 25 mm (B) of thickness 0.8 to 1.0 mm	1 RM	39
740	TBSC-P.II-17	Box hinges for cup boards	1 Each	49
741	TBSC-P.II-18	GI Powder Coated Friction stay hinges of 14" Long for windows	1 Each	349
742	TBSC-P.II-19	Stainless Steel Butt hinges (IS:12817)- 75 mm Long	Each	75
743	TBSC-P.II-20	Stainless Steel Butt hinges (IS:12817)- 100 mm Long	Each	109
744	TBSC-P.II-21	Stainless Steel Butt hinges (IS:12817)- 125 mm Long	Each	139
745	TBSC-P.II-22	Stainless Steel Butt hinges (IS:12817)- 150 mm Long	Each	174
III	SUB-SECTION	DOOR HANDLES		
746	TBSC-P.III-01	Aluminium Door Handles (IS:208) 75 mm Long	Each	53
747	TBSC-P.III-02	Aluminium Door Handles (IS:208) 100 mm Long	Each	63
748	TBSC-P.III-03	Aluminium Door Handles (IS:208) 125 mm Long	Each	89
749	TBSC-P.III-04	Aluminium Door Handles (IS:208) 150 mm Long	Each	104
750	TBSC-P.III-05	MS-Powder Coated Door Handles (IS:208) 125 mm Long	Each	38
751	TBSC-P.III-06	MS-Powder Coated Door Handles (IS:208) 150 mm Long	Each	54
752	TBSC-P.III-07	Brass fancy handles 150 mm	Each	359
753	TBSC-P.III-08	Brass fancy handles 200 mm	Each	485

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
754	TBSC-P.III-09	Brass fancy handles 250 mm	Each	875
755	TBSC-P.III-10	Brass fancy handles 300 mm	Each	1115
756	TBSC-P.III-11	Brass fancy handles 450 mm	Each	1744
757	TBSC-P.III-12	Keyless lockset for toilet doors with CP or PC knob handles (complete set)	Each	367
758	TBSC-P.III-13	Keyless lock set for toilet doors with brass knob handles	Each	983
759	TBSC-P.III-14	Hard Nylon Window Handle	Each	76
760	TBSC-P.III-15	Stainless Steel Door Handles 100 mm Long	Each	112
761	TBSC-P.III-16	Stainless Steel Door Handles 125 mm Long	Each	133
762	TBSC-P.III-17	Stainless Steel Door Handles 150 mm Long	Each	163
763	TBSC-P.III-18	Stainless Steel Door Handles 200 mm Long	Each	183
IV	SUB-SECTION	ALDROPS		
764	TBSC-P.IV-01	Brass Aldrops (IS:2681) 300 mm long	Each	1369
765	TBSC-P.IV-02	Brass Aldrops (IS:2681) 350 mm long	Each	2637
766	TBSC-P.IV-03	Brass Aldrops (IS:2681) 450 mm long	Each	3754
767	TBSC-P.IV-04	Aluminium Aldrops (IS:2681) 200 mm long	Each	196
768	TBSC-P.IV-05	Aluminium Aldrops (IS:2681) 250 mm long	Each	227
769	TBSC-P.IV-06	Aluminium Aldrops (IS:2681) 300 mm long	Each	248
770	TBSC-P.IV-07	MS-Powder Coated Aldrops (IS:2681) 200 mm long	Each	124
771	TBSC-P.IV-08	MS-Powder Coated Aldrops (IS:2681) 250 mm long	Each	160
772	TBSC-P.IV-09	MS-Powder Coated Aldrops (IS:2681) 300 mm long	Each	192
773	TBSC-P.IV-10	Stainless Steel Aldrops (IS:15834) 200 mm long	Each	275
774	TBSC-P.IV-11	Stainless Steel Aldrops (IS:15834) 250 mm long	Each	324
775	TBSC-P.IV-12	Stainless Steel Aldrops (IS:15834) 300 mm long	Each	356
V	SUB-SECTION	LATCHES		
776	TBSC-P.V-01	Brass latch heavy 300 mm	Each	688
777	TBSC-P.V-02	Brass latch heavy 350 mm	Each	791
778	TBSC-P.V-03	Brass latch heavy 450 mm	Each	1043
779	TBSC-P.V-04	Aluminium Flat Latches: 200 mm long	Each	114
780	TBSC-P.V-05	Aluminium Flat Latches: 250 mm long	Each	125
781	TBSC-P.V-06	Aluminium Flat Latches: 300 mm long	Each	135
782	TBSC-P.V-07	MS-Powder Coated Flat Latches: 250 mm long	Each	63
783	TBSC-P.V-08	MS-Powder Coated Flat Latches: 300 mm long	Each	78
VI	SUB-SECTION	DOOR CLOSURES		
784	TBSC-P.VI-01	Providing and fixing Cast Iron Body Bottle Type Hydraulic Door Closer (IS: 3564) with double speed adjustment, with necessary accessories and screws etc. complete	Each	1110
785	TBSC-P.VI-02	Providing and fixing Aluminium Extruded Section Body Tubular Type Hydraulic Door Closer (IS: 3564) with double speed adjustment with necessary accessories and screws etc. complete (Type-1: for width of doors up to 700 mm)	Each	1301
786	TBSC-P.VI-03	Providing and fixing Aluminium Extruded Section Body Tubular Type Hydraulic Door Closer (IS: 3564) with double speed adjustment with necessary accessories and screws etc. complete (Type-2: for width of doors 701 to 850 mm)	Each	1393
787	TBSC-P.VI-04	Providing and fixing Aluminium Extruded Section Body Tubular Type Hydraulic Door Closer (IS: 3564) with double speed adjustment with necessary accessories and screws etc. complete (Type-3: for width of doors 851 to 1000 mm)	Each	1463
VII	SUB-SECTION	FLOOR SPRINGS		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
788	TBSC-P.VII-01	Double action Stainless steel cover plate and cast body iron floor spring (IS 6315- Table-1)	Each	2010
789	TBSC-P.VII-02	Double action Brass cover plate and cast brass body floor spring (IS 6315- Table-1)	Each	4835
790	TBSC-P.VII-03	Providing and fixing double action brass cast hydraulic floor spring (IS:6315-Table 1) for doors including cost of cutting floors as required, embedding in floors and S.S./ Brass cover plates with brass pivot and single piece M.S. Sheet outer box with slide plate etc. complete (door weight capacity up to 130 Kgs)	Each	4111
791	TBSC-P.VII-04	Providing and fixing double action brass cast hydraulic floor spring (IS:6315-Table 1) for doors including cost of cutting floors as required, embedding in floors and S.S. cover plates with brass pivot and single piece M.S. Sheet outer box with slide plate etc. complete (door weight capacity up to 80 Kgs)	Each	3058
792	TBSC-P.VII-05	Providing of brass cast body Floor Spring IS: 6315 sleek in size with the S.S. / Brass Cover plates of Length 320 mm x Breadth 130 mm size along with the Top Patch, Bottom Patch, Door Lock and Pivot with Double Cylinder etc. complete for Heavy duty Glass doors.	Each	13331
VIII	SUB-SECTION	MORTICE LOCKS		
793	TBSC-P.VIII-01	Heavy duty mortise lock 6/7 levers (IS:2209) with PC or CP handles complete set	Each	984
794	TBSC-P.VIII-02	Heavy duty mortise lock 6/7 levers (IS:2209) with brass heavy handles	Each	2564
IX	SUB-SECTION	OTHER ACCESSORIES		
795	TBSC-P.IX-01	Brass Door Stoppers	Each	213
796	TBSC-P.IX-02	MS-Powder Coated - Door Stoppers	Each	54
797	TBSC-P.IX-03	Heavy duty Aluminium Door stopper	Each	69
798	TBSC-P.IX-04	Rubber/ Nylon door stop bushes	1 Each	13
799	TBSC-P.IX-05	Supply & fixing Mild Steel Powder coated drapery curtain rods (25.4 mm) 1" x 21 G with PVC rings	1 RM	135
800	TBSC-P.IX-06	Supply & fixing design drapery curtain rod bracket - brass/ stainless steel powder coated heavy duty	pair	483
801	TBSC-P.IX-07	Nylon rollers for sliding glasses/ aluminium windows	1 Each	18
802	TBSC-P.IX-08	MS Z Hold fasts - 300 mm long of 40 x 40 x 5 mm ISA	1 Each	39
803	TBSC-P.IX-09	Magnetic Catchers	1 Each	17
804	TBSC-P.IX-10	Supplying and fixing Aluminium Curtain Drapery rod of 25 mm dia not less than 1.0 mm thick powder coated with premium finish, including rings, screws etc., complete	1 RM	102
805	TBSC-P.IX-11	Supplying and fixing Stainless Steel Curtain Drapery rod of 25 mm dia 1.0 mm thick of 304 Grade steel powder coated with premium finish, including rings, screws etc., complete	1 RM	288
806	TBSC-P.IX-12	Supplying and fixing Brass Curtain Drapery rod of 25 mm dia not less than 1.0 mm thick powder coated with premium finish, including rings,	1 RM	326

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		screws etc., complete		
807	TBSC-P.IX-13	D type on rose Mortise handle SS 304 Grade 19mm dia	1 Set	1151
808	TBSC-P.IX-14	Euro profile Cylinder Key & Knob 60mm SS finish	1 Each	588
809	TBSC-P.IX-15	10" on plate mortise handle with mortise lock body and cylinder key and knob 60mm	1 Set	2340
810	TBSC-P.IX-16	8" on plate mortise handle with mortise lock body and cylinder key and knob 60mm	1 Set	2032
811	TBSC-P.IX-17	Digital Lock 101 MGM 4 in 1 Access	1 Set	12564
812	TBSC-P.IX-18	Soft close clip-on prime pack master 0,8 crank with 5mm mounting plate	Pair	208
813	TBSC-P.IX-19	Door stopper in twin Door Mounted Hanging Type 304 grade	1 Each	356
814	TBSC-P.IX-20	Door Buffer	1 Each	34
Q	SECTION	CONSTRUCTION CHEMICALS & ADMIXTURES		
		Approved brands, area of application, dosage etc have been appended to this SoR for the guidance for preparation of estimates only. However, Literature for usage/ application of construction/ waterproofing materials, epoxies etc, may be obtained from the manufacturers, while in execution.		
I	SUB-SECTION	PLASTICIZERS		
815	TBSC-Q.I-01	Concrete Plasticizers and Water reducing admixture Conforming to IS:9103-1999	1 Ltr	213
816	TBSC-Q.I-02	Early High Strength, High water retention, Poly carboxylic plasticizers Conforming to IS:9103-1999	1 Kg	150
817	TBSC-Q.I-03	High performance super plasticizer and water reducing admixture Conforming to IS: 9103-1999	1 Kg	101
818	TBSC-Q.I-04	Super plasticizer for high range water reducing admixture Conforming to IS: 9103-1999	1 Kg	112
819	TBSC-Q.I-05	Super plasticizer, high range water reducing and retarding admixture complying with IS: 9103-1999	1 Kg	124
820	TBSC-Q.I-06	Plasticizer for accelerator for sprayed concrete Conforming to IS: 9103-1999.	1Kg	92
821	TBSC-Q.I-07	High Early Strength Concrete Admixture for Road Repairs	1 Ltr	32
II	SUB-SECTION	WATER PROOFING COMPOUNDS		
822	TBSC-Q.II-01	Integral Cement Waterproofing Liquid Conforming to IS: 2645-2003	1 Ltr	223
823	TBSC-Q.II-02	High durable cementitious acrylic based waterproofing systems	1 Kg	143
824	TBSC-Q.II-03	Acrylic Polymer Elastomeric Cementitious Waterproof Coatings	1 Ltr	369
825	TBSC-Q.II-04	Single component, elastomeric waterproof membrane coating	1 Ltr	449
826	TBSC-Q.II-05	Quick setting, rapid hardening and water proofing compound Conforming to IS: I.S. 2645-2003	1 Ltr	85
827	TBSC-Q.II-06	Highly Flexible Waterproof Acrylic Elastomeric bituminous Blended Coatings	1 Ltr	317
828	TBSC-Q.II-07	Two-part system of fibre reinforced Acrylic Cementitious Waterproofing coating.	Kg	153
829	TBSC-Q.II-08	High strength cellulose fibre reinforced acrylic	Ltr	324

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		elastomeric liquid membrane waterproof coating		
830	TBSC-Q.II-09	High Strength Acrylic Penetrative U,V. Resistant concrete road top coatings.	Ltr	356
831	TBSC-Q.II-10	High performance polyurethane blended with bituminous Membrane coating (Complies with ASTM C - 836)	Ltr	660
832	TBSC-Q.II-11	Nano Technology water based transparent silicon water repellent	Ltr	760
833	TBSC-Q.II-12	Providing and applying Brush bond (two component acrylic polymer modified elastomeric waterproofing membrane which consists of Brush bond powder and Brush bond liquid acrylic emulsion) for a minimum 2mm thickness coating. (Work shall be executed as per manufacturer's specification and instructions.	Ltr	262
III	SUB-SECTION	BONDING AGENTS/ ADHESIVES		
834	TBSC-Q.III-01	Acrylic based Bonding adhesive	1 Ltr	159
835	TBSC-Q.III-02	Styrene butadiene rubber based bonding agent	1 Kg	475
836	TBSC-Q.III-03	Two Parts system of Epoxy Bonding adhesive Conforming to ASTM-C 881	1 Kg	917
837	TBSC-Q.III-04	Liquid Polymer additive for cement & concrete mixes	1 Ltr	253
838	TBSC-Q.III-05	Polymer cementitious additive for fixing tiles/ stones etc	1 Kg	230
839	TBSC-Q.III-06	Highly multipurpose Roads Grade concrete bonding agent	Ltr	230
840	TBSC-Q.III-07	Polymer Modified Adhesive mortar for jointing AAC Blocks/ Other Blocks	1 Kg	16
IV	SUB-SECTION	ANTI-CORROSIVE AGENTS		
841	TBSC-Q.IV-01	Acrylic based Anti-corrosive coating	1 Ltr	369
842	TBSC-Q.IV-02	Rust converter -rust encapsulating coating for steel	1 Ltr	506
843	TBSC-Q.IV-03	High range of reinforcement / steel protector against corrosion zinc rich epoxy resin primer	1 Kg	789
844	TBSC-Q.IV-04	Anti corrosion CRPPC (Corrosion Resistant) inhibitive admixture	1 Lit	365
845	TBSC-Q.IV-05	Anti-carbonation coating for Concrete Structures under aggressive environment/ Flyovers/ Bridges: Providing and application of Highly elastomeric anti carbonation coating with good crack bridging ability, waterproofing properties & UV Resistant. Product should be withstanding at minimum 5bar pressure against water penetration as per BSEN:12390(PART 8)-2006, having elongation of >350 %(ASTM D412-16, tensile strength >4 Mpa(ASTM D412-16,Water Vapour Transmission rate(g/m2/hr) 0.42(ASTM E96-16),Co2 Diffusion Co-efficient R:>200m @300 Micron Fft. Thickness: Recommended thickness of 200 Micron Dft in two coats. Coverage: 3.5-5.5 m2/Ltr/coat (2coats recommended)	1 Sqm	933
846	TBSC-Q.IV-06	Polyurethane Coatings for Steel structures like Bridges/Walkways etc., Providing and application of High-Quality lead and chromate free two component (Acrylate-Isocyanate based)	1 Sqm	985

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Polyurethane coating for Steel structures, machinery & apparatus. This coating is resistant to water, diluted acids and chemicals and having excellent abrasion resistance, weather resistance and impact resistance. Product is sustained with thermal resistance up to 1200°C dry heat. System comprised of High Solid Epoxy Resin primer with Polyurethane topcoat as per ISO 12944. Thickness: 40-60 Micron Dft Coverage: 90gms/ Sq.mtr in 1 coat. Two coats recommended.		
V	SUB-SECTION	GROUTS		
847	TBSC-Q.V-01	High Power Polyester Resin Anchor Grout Conforming to ASTM-827	1 Kg	317
848	TBSC-Q.V-02	Non-shrink Free flow high strength precision grout Conforming to BS 1881 Part 1161983.	1 Kg	38
849	TBSC-Q.V-03	Low viscosity Epoxy resin injection grout	1 Kg	843
850	TBSC-Q.V-04	Three component epoxy grouts Conforming to IS: ASTM 827 (Three components)	1 Kg	170
851	TBSC-Q.V-05	Expansive aqua -reactive water barrier and grouting system.	1 Kg	1093
VI	SUB-SECTION	MISCELLANEOUS CHEMICALS		
852	TBSC-Q.VI-01	Moulds / Shutter releasing oil	1 Ltr	154
853	TBSC-Q.VI-02	Non oxidizing, heavy duty metallic Floor Hardeners	1 Kg	41
854	TBSC-Q.VI-03	Non-metallic Floor Hardeners	1 Kg	34
855	TBSC-Q.VI-04	High Strength, Non shrink Micro Concrete for structural repair product.	1 Kg	40
856	TBSC-Q.VI-05	Structural graded polymer modified reinstatement concrete / mortar (Two Part System)	1 Kg	92
857	TBSC-Q.VI-06	Three Component high performance elastomeric mortar.	1 Kg	1000
858	TBSC-Q.VI-07	Surface treatment crystalline product.	1 Kg	381
859	TBSC-Q.VI-08	Polyurethane Sealant. 600 ml tube	1 No	769
860	TBSC-Q.VI-09	Polysulphide Sealant.	1 Kg	475
861	TBSC-Q.VI-10	Acrylic Latex caulking compound.	1 Kg	354
862	TBSC-Q.VI-11	Fast setting cement-based plugging compound	1 Kg	92
863	TBSC-Q.VI-12	Highly Flexible High Range Polyurethane surface coatings	1 Ltr	685
864	TBSC-Q.VI-13	Coal Tar Epoxy	1 Kg	369
865	TBSC-Q.VI-14	Water Based Acrylic Blended High power curing compound	1 Kg	107
866	TBSC-Q.VI-15	Bituminous hot sealing compound	1 Kg	128
867	TBSC-Q.VI-16	Bitumen solution primer coating.	1 Kg	92
868	TBSC-Q.VI-17	Air Entraining Agent Conforming to IS: 9103-99	1 Ltr	128
869	TBSC-Q.VI-18	Imidacloprid 30.5% S.C diluted @ 2.1 ml of formulation in one Litre of water for the termite treatment in the buildings during pre and post construction stages as per current BIS standard practices (IS:6313 part II and III)	1 Lit	3863
870	TBSC-Q.VI-19	Multifilament Polypropylene fibres of 6/12/18 mm length for Plastering, Screeds, all Precasting items	1 Kg	305
871	TBSC-Q.VI-20	Macro Synthetic fibres of 45mm length for CC Roads, Ground Supported Slabs, Pavements,	1 Kg	456

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Sprayed Concrete, Tunnel linings, Mining		
872	TBSC-Q.VI-21	Steel Fibres of 35 mm length for CC Roads, Ground Supported Slabs, Pavements, Sprayed Concrete, Tunnel linings, Mining	1 Kg	102
873	TBSC-Q.VI-22	High strength, Acrylic blended dry colour mortar /concrete	1 Kg	50
874	TBSC-Q.VI-23	Providing post construction anti termite treatment by drilling 1/2-inch dia., holes at the edges of wall floor junction and pouring anti termite chemical (Imidacloprid 30.5 SC, 10.5 ml for 5 Litres of water as per IS 16131.) with a hand operated pressure pump until refusal or to a maximum of one later per hole. Holes shall be sealed with cement motor after treatment and providing spraying and injecting termiticides for treating and applying to doors, windows, frames, removing, crusting treating in Treatment along outside of foundations (i.e., Soil in contact with external walls around the building and Concrete or Masonry apron around the building), Treatment of soil under floors - Inside Building, Treatment to voids in masonry, Treatment at points of contact of woodwork, Treatment of Wood Work, Treatment of Electrical Fixtures, as directed in IS 6313 Part 3 2013 with preventive chemicals duly taking precautions for health hazards and safety measures for the occupants including all costs, conveyances of all materials and labour charges etc for finished item of work to the satisfaction of the Engineer-in-Charge. The plinth area of the building each floor shall be taken for the purpose of payment.	1 Sqm	145
VII	SUB-SECTION	REPAIRING & TREATMENT WORKS		
875	TBSC-Q.VII-01	Providing Tar Felting roof repair with approved brand Tar Felt duly applying one coat of appropriate grade of bitumen in hot condition @ 0.2 Kg/1 Sqm of roof area, fixing tar felt (Conforming to IS 1322-1972 specification), applying second coat of appropriate grade of hot bitumen at 1.20 Kg / 1 Sqm of roof area and spreading coarse aggregate (sand) at 0.063 Cum per 1 Sqm of roof area finished item.	1 Sqm	320
876	TBSC-Q.VII-02	Providing waterproofing treatment by supplying and fixing synthetic membrane felt of 1.50 mm thickness, 2.25 Kg per Sq. Mtr. duly applying one coat of Bituminous Emulsion, first coat of bituminous grade 85/25, fix waterproofing membrane, applying second coat of bitumen grade 90/15 after sealing all the joints and abutments with a Gas torch and applying one coat of bituminous aluminium paint for heat resistance for finished item.	1 Sqm	449
877	TBSC-Q.VII-03	Providing and laying of 3mm thick app modified bitumen membrane treatment to the terrace duly [1]removing of existing tar felt. [2]cleaning of the surface from dirt, dust and	1 Sqm	603

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		other contaminations. [3]application of one coat of Bitumen primer [4]providing and laying of 3mm thick APP Modified Bitumen Membrane with 100 mm overlap fixing with butane torch.		
878	TBSC-Q.VII-04	Providing specialized high performance acrylic polymer modified elastomeric cementitious waterproof coating to the terrace / walls / internal portion of the bathroom & toilets / internal portion of the water tanks duly cleaning of the surface from dirt, dust and other contaminations, providing and application of Two coats of High-performance Acrylic polymer modified Elastomeric cementitious waterproof coating (1.8 Sq. Mtr. / Kg /Each Coat)	1 Sqm	479
879	TBSC-Q.VII-05	Providing specialized high build, elastomeric acrylic bituminous blended coating to the terrace / internal portion of the bathroom / toilets / basements / roofing duly a). Cleaning of the surface. b). Applying primer coat of High Build, Elastomeric Acrylic Bituminous Blended Coating c). Application of Two coats of High Build, Elastomeric Acrylic Bituminous Blended Coating	1 Sqm	443
880	TBSC-Q.VII-06	Providing specialized high solid, cold applied, acrylic elastomeric liquid membrane coating treatment to the terrace / roofing with fibre mesh / geo fabric duly a. Cleaning of the surface from dirt, dust and other contaminations. b. Applying one coat of High solid, Cold applied, Acrylic Elastomeric Liquid Membrane coating c. immediately, Application of one coat of High solid, Cold applied, Acrylic Elastomeric Liquid Membrane coating e. Laying of fibre mesh 40 GSM / Geo fabric 40 GSM on the surface. f. Over the Fibre mesh, Application of two coats of High solid, cold applied, Acrylic Elastomeric Liquid Membrane Coating	1 Sqm	701
881	TBSC-Q.VII-07	Providing specialized polysulphide sealant treatment to the expansion joints (Size : 25 mm x 25 mm) duly a]. Chipping and removing of existing covering on expansion joints b]. Cleaning of the surface from dirt, dust and other contaminations c].Application of one coat of - High performance specially designed SBR latex polymer based bonding agent d]. Providing and application of Acrylic Polymer modified reinstatement concrete /mortar to the damaged edges of joint and making the groove. e]. Providing and fixing of masking tape on top of the joint both sides f]. Providing and fixing of Back up support material of PVC Solid Backer rod to leave the depth of 25 mm on the joint g]. Providing and application of one coat of polysulphide primer on inner edges of Joint. h]. Providing and application of Two-part Polysulphide sealant to a width of 25 mm and	1 RM	797

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		depth of 25 mm with putty knife and neat finish i]. Removing of masking tape and providing and application of two coats of Acrylic elastomeric cementitious coating		
882	TBSC-Q.VII-08	Pressure grouting the drilled holes with neat cement slurry or with approved grout admixture using pump - excluding cost of drilling holes after fixing nozzles as technical specification approved by the department	1 Each	397
883	TBSC-Q.VII-09	Providing multi-coloured silicon fluorocarbon spray coating of thickness 1mm for exterior & interior wall finishes to give Natural Granite appearance comprising of 4 coats including application of primer, waterproof coat, Multi colour texture & finally UV resistant with repellent clear coat of low VOC, non-toxic, Green Building compliant material	1 Sqm	1701
884	TBSC-Q.VII-10	Providing and applying epoxy based anti-skid coat over existing RCC/Concrete flooring surfaces of 2mm thickness for wear & tear protection in three-part applications containing low solvent-coloured, epoxy resin-based coating with thyratrophic properties specially formulated for application in Car Parks having Mechanical / Physical Properties such as 1. Abrasion Resistance ~ 0.8mm thickness loss (According to IS 1237 - 1980 and IS 9162 - 1979) 2. Chemical Resistance to many chemicals 3. Thermal Resistance Exposure with Dry heat Permanent +50°C	1 Sqm	804
885	TBSC-Q.VII-11	Providing and applying epoxy resin based self-levelling Conductive Floor System of 2mm thick Antistatic (ESD) Flooring System comprising of 1 coat of Primer followed by Application of copper tape and 1 layer of SL Conductive Undercoat and 1 layer of SL Conductive Top coat with Compressive strength after 7 days at +30° C: 50 N/mm ² and Flexural strength after 7 days at +30° C: approx. 25N/mm ² and Tensile strength after 7 days at +30° C: 16 N/mm ² with a Surface resistance When measured for surface resistance in accordance with BS 2050: 1978 (A-1984) and DIN EN 1081, the static Conductive topping including under coat shall be less than 25k Ω.	1 Sqm	1653
886	TBSC-Q.VII-12	Providing and applying food grade epoxy based waterproof coat over existing RCC/Concrete flooring surfaces in three-part applications containing low solvent-coloured, epoxy resin-based coating with low VOC properties specially formulated for food grade application for potable water storage tanks in ambient temperatures	1 Kg	332
887	TBSC-Q.VII-13	Providing waterproof treatment by supplying and fixing of MAT of 2mm thickness, 2.25 kg per sqm, first coat of bituminous emulsion, then one coat of bitumen 85/25 grade, fixing of waterproofing membrane, sealing of joints with torch, applying second coat of bitumen 85/25 grade, and	1 Sqm	506

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		applying a coat of bituminous Aluminium paint for heat resistance for finished item of work as directed by the Engineer-in-Charge		
888	TBSC-Q.VII-14	Providing and applying single component low viscous hydrophobic liquid applied polyurethane based waterproofing membrane system applied with desired thickness at 1.5 mm thickness with a coverage of 1.8 kg Per Sq.Mtr in two coats over prepared surface on which grouting is done in the form of pressure grouting to the cold joint by injecting cement slurry mixed with grout admixture @ 250 gms. Per bag of cement, in the required consistency through the pre fixed PVC nozzles in the 10mm dia holes and applied with two coats of primer, of technical parameters: Tensile Strength: >5Mpa(ASTM D412) Elongation : ≥ 650 % (ASTM D412) Solid Content:95% Crack Bridging ability : upto 2 mm, UV Resistant including providing and laying M20 grade screed concrete in 1:100 to a minimum thickness of 75 mm mixed -Integral Waterproofing admixture at the dosage of 125 ml/bag of cement and virgin polypropylene fibrillated fibre at 0.9kg/m ³ ,over waterproofing layer to a minimum thickness of 75 mm as per site requirement(Civil Contractor Scope) including control joints of 4M X 4M size and filling the panels with polyurethane sealant, finally application of High Thermal Reflectance and Emittance Coating(Cool Roof): Application of a single component, water based, high thermal reflectance & emittance coating with SRI 105(ASTM E 1980-11) Solar Reflectance (ISO 9050/EN410): 0.834, Solar Emittance (EN 673):0.938 coating done over Slope Making cum protection screed at 250gm/Sq.Mtr	1 Sqm	1200
889	TBSC-Q.VII-15	Providing and Application of Self Levelling High performance Epoxy Floor Topping over VDF Flooring(Industrial Flooring, Food Processing areas, Warehouses) providing and application of Solvent free self-levelling epoxy floor Topping with 100% solid content product at 1mm thickness, to meet California Department of Public Health CDPH/EHLB Standard Method Version 1.2 2017 with a compliance certification on: Meets SCAQMD Rule 1113 for VOC content, Contributes toward satisfying credit for low emitting material under LEED 4.1, Low VOCs & Low installation odour with: A. Primer Application, Primer to the concrete substrate:- Application of solvent free epoxy resin based primer 150-200gm/Sq.Mtr, B. Topping:-Finally application of Solvent free Epoxy resin-based Self Levelling floor topping of approved manufacturer at 1mm thickness. Floor Topping to meet: Mixed Density: Approx. 1.60 gm/cc Shore D hardness :	1 Sqm	1300

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		(ASTM D 2240) : 85-90, Pot Life :20-30 Mins at 30°C, Compressive strength(ASTM C579) > 80 N/mm ² , Flexural Strength (ASTM C580) >79 N/mm ² Tensile Strength (ASTM C307) >34 N/mm ² , Bond strength at 7 days (ASTM D7234):Cohesive failure of concrete, Gloss at 60 Deg,1 Day(ASTM D 2457) :85, Skid Resistance on a clean dry surface(ASTM E303) : 50, Abrasion (ASTM D4060) : 32mG loss		
890	TBSC-Q.VII-16	Providing and application of chemical resistant heavy duty Polyurethane flooring at 4mm thickness over VDF Flooring(Industrial Flooring, Food Processing plants, cold storages, Breweries and Beverage Plants). For cold storages thickness need to build up at minimum 8mm-9mm. product to meet: Contributes toward satisfying credit for low emitting material under LEED 4.1:, Meets SCAQMD Rule 1113 for VOC content, Thermal Shock Resistant, Excellent Chemical Resistance, Floor Topping must meet the following technical parameters, Mixed Density: Approx. 2.05 gm/cc Shore D hardness : (ASTM D 2240) : 85-90, Pot Life :15-20 Mins at 23°C Compressive strength(ASTM C579) > 55 N/mm ² , Flexural Strength (ASTM C580) >16 N/mm ² , Tensile Strength (ASTM C307): 6~ 8 N/mm ² , Bond strength at 7 days (ASTM D7234):Cohesive failure of concrete, Gloss at 60 Deg,1 Day(ASTM D 2457) :85, Abrasion (ASTM D4060) : 70mG loss, Modulus of Elasticity ASTM C580: 2.2 x 10 ⁸ PSI, dry Temperature Resistance: -84°C to 93°C, Coefficient of Thermal Expansion ASTM C531: 1.7 x 10 ⁻⁵	1 Sqm	1750
VIII	SUB-SECTION	EXPANSION JOINTS		
891	TBSC-Q.VIII-01	Supply of high-performance expansion joint filler board conforming to IS: 1838 - 18 mm THICK	1 Sqm	846
892	TBSC-Q.VIII-02	Supply of high-performance expansion joint filler board conforming to IS: 1838 - 20 mm THICK	1 Sqm	949
893	TBSC-Q.VIII-03	Supply of high-performance expansion joint filler board conforming to IS: 1838 - 25 mm THICK	1 Sqm	1186
894	TBSC-Q.VIII-04	Supply of expansion joint filler board conforming to IS: 1838 for buildings, columns, beams and slabs 20 mm THICK	1 Sqm	340
895	TBSC-Q.VIII-05	Supply of expansion joint filler board conforming to IS: 1838 for buildings, columns, beams and slabs 25 mm THICK	1 Sqm	425
896	TBSC-Q.VIII-06	Supply of expansion joint filler board conforming to IS: 1838 for buildings, columns, beams and slabs 50 mm THICK	1 Sqm	846
897	TBSC-Q.VIII-07	Supply of back up to cold applied gun-grade polysulphide sealant conforming to IS:11433 (Part-1) in construction and longitudinal joint - 10 mm OD	1 RM	15
898	TBSC-Q.VIII-08	Supply of back up to cold applied gun-grade polysulphide sealant conforming to IS:11433 (Part-1) in construction and longitudinal joint - 12	1 RM	17

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		mm OD		
899	TBSC-Q.VIII-09	Supply of back up to cold applied gun-grade polysulphide sealant conforming to IS:11433 (Part-1) in construction and longitudinal joint - 15 mm OD	1 RM	21
900	TBSC-Q.VIII-10	Supply of back up to cold applied gun-grade polysulphide sealant conforming to IS:11433 (Part-1) in construction and longitudinal joint - 20 mm OD	1 RM	30
901	TBSC-Q.VIII-11	Supply of back up to cold applied gun-grade polysulphide sealant conforming to IS:11433 (Part-1) in construction and longitudinal joint - 25 mm OD	1 RM	37
902	TBSC-Q.VIII-12	Chipping and scarifying the existing DPC/ plum concrete surface or impervious surface up to 50 mm thick to expose the virgin surface of the concrete using low/ medium vibratory chipping machine as a part of structural repair/ retrofitting	1 Sqm	25
903	TBSC-Q.VIII-13	Providing and filling the chipped and scarified surface with High Strength, Non shrink Free Flow Micro Concrete mixing with water 3.75 to 4 litres per 25 kg bag and 6 to 12 mm aggregate, if necessary, as per the directions of the Engineer-in-charge as a part of structural repair/ retrofitting	1 Cum	41652
904	TBSC-Q.VIII-14	Supplying and fixing of weld mesh of size 100 x 100 x 3 mm using "U" nails into the existing prepared surfaces of concrete/ masonry as per the directions of the Engineer-in-charge as a part of structural repair/ retrofitting	1 Sqm	316
905	TBSC-Q.VIII-15	Providing guniting to the treated surfaces of concrete/ masonry with 30-35 mm thick premixed polypropylene fibres in two layers with dry-gun concrete as per IS 9012:1978 and the directions of the Engineer-in-Charge as a part of structural repair/ retrofitting	1 Sqm	3145
906	TBSC-Q.VIII-16	Providing shortcreting to the treated surfaces of concrete/ masonry with 25 - 30 mm thick premixed polypropylene fibres in two layers with wet-gun concrete as per IS 9012:1978 and the directions of the Engineer-in-Charge as a part of structural repair/ retrofitting	1 Sqm	3145
907	TBSC-Q.VIII-17	Providing and fixing of horizontal floor to floor expansion joint system for specified gap width of 100/25 metallic system after laying of necessary EPDM membrane over the joint profile related with floor location as per drawings. The joints system will be of extruded aluminium base members, support plates with EPDM top seal etc. as per ASTM B221-02. The system shall be such that it provides floor to floor expansion control system for various vertical location in load application areas that accommodates multi directional seismic movement without stress to its components. System shall consist of metal	1 RM	3134

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		profiles with a universal aluminium base member designed to accommodate various project conditions and finish floor treatments. The cover plate shall be designed of width and thickness required to satisfy projects movement and loading requirements and secured to base members . Expansion joint shall be tested for their watertight property & the same shall be watertight for a period of five years. (Material shall confirm to ASTM 6063.) Rates shall also be inclusive of material and labour of all exposed aluminium work, all as per manufacturers specifications. Rate should be exclusive of necessary scaffolding work, non-shrink grout, RCC cutting, edge preparation, stone fixing in recess part of joint etc complete.		
908	TBSC-Q.VIII-18	Providing and fixing of paintable - expansion joint system for specified gap width of 25mm for all Internal /external - vertical wall to wall /wall to corner /ceiling location as per drawings, applying of PU sealant on both side of the seal into the groves after applying of the masking tape on both side of the joint to ensure straight alignment and squeezing the seal into the joint with uniform hand pressure and sealing the same . remove the residue form the top and masking tape from the side to ensure watertight joint complete in all respects. Internal wall 25mm expansion gap	1 RM	2042
909	TBSC-Q.VIII-19	Providing and fixing of paintable - expansion joint system for specified gap width of 25mm for all Internal /external - vertical wall to wall /wall to corner /ceiling location as per drawings, applying of PU sealant on both side of the seal into the groves after applying of the masking tape on both side of the joint to ensure straight alignment and squeezing the seal into the joint with uniform hand pressure and sealing the same . remove the residue form the top and masking tape from the side to ensure watertight joint complete in all respects. External Wall 25mm expansion gap	1 RM	3283
910	TBSC-Q.VIII-20	Providing and Fixing of Aluminium Mechanical expansion joint covers over 50mm wide expansion joint on the floor, made of Anodized Aluminium alloy (6063 T5/T6) consisting of support slides and rubber gasket (made of elastomeric seal) fixed with 8x80mm sleeve anchors at every 0.508mm interval. Including providing a layer of EDPM Barrier (between the exposed expansion joint and profile) with epoxy-based adhesive on both the sides of expansion joint. Including cost and conveyance of all materials to site, all incidental, buffing & cleaning of surfaces, operational, labour charges, etc., complete for finished item of work as per approved drawing. (Floor to Floor expansion joint)	1 RM	5250

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
911	TBSC-Q.VIII-21	Providing and Fixing of plain or L or V type Aluminium Mechanical expansion joint covers over 50mm gap Wall to Wall or Column to Wall, made of continuous Extruded (118mm width) Powder coated Aluminium alloy (6063 T5/T6) consisting of snap on wall system with 50% movement with 6x40mm sleeve anchors at every 0.508mm interval. Including cost and conveyance of all materials to site, all incidental, buffing & cleaning of surfaces, operational, labour charges, overheads & contractors profit etc., complete for finished item of work as per approved drawing. (Floor to Floor expansion joint)	1 RM	6125
912	TBSC-Q.VIII-22	Providing and Fixing of plain or L or V expansion joint covers over 75mm gap Wall to Wall or Column to Wall, made of continuous Extruded (118mm width) Powder coated Aluminium alloy (6063 T5/T6) consisting of snap on wall system with 50% movement with 6x40mm sleeve anchors at every 0.508mm interval. Including cost and conveyance of all materials to site, all incidental, buffing & cleaning of surfaces, operational, labour charges, etc., complete for finished item of work as per approved drawing. (Floor to Floor expansion joint)	1 RM	7235
R	SECTION	MISCELLANEOUS ITEMS		
I	SUB-SECTION			
913	TBSC-R.I-01	Supply of White Cement conforming to IS:8042-1989	1 Kg	36
914	TBSC-R.I-02	Supply of well burnt cinder aggregates as per IS: 2686-1977	1 Cum	937
915	TBSC-R.I-03	Supply of Aluminium annealed and anodized sections for Doors, partitions, windows, Ventilators (including anodization cost) conforming to IS: 11857 - 1986/ Aluminium plates, sheets and sections for formwork and other industrial uses purposes	1 Kg	345
916	TBSC-R.I-04	Providing Powder coating as per IS:13871-1993 or colour anodization as per IS:7088-1973 - on any aluminium or mild steel section	1 Kg	37
917	TBSC-R.I-05	Providing hot dip galvanizing to any steel section as per IS:2629-1985	1 Kg	22
918	TBSC-R.I-06	Supply of Clear Silicone Sealant (Glass Glue Sealant) of Gun Applicator grade	1 Kg	246
919	TBSC-R.I-07	Supply of Sun Control film to the glazed windows partition including labour charges.	1 Sqm	348
920	TBSC-R.I-08	Supply of Aluminium Venetian Blinds horizontal 25.4 mm wide with all accessories.	1 Sqm	894
921	TBSC-R.I-09	Supply of Aluminium Venetian Blinds horizontal 20.0 mm wide with all accessories.	1 Sqm	852
922	TBSC-R.I-10	Supply of Venetian blinds Vertical blinds 100 mm wide with all accessories.	1 Sqm	1425
923	TBSC-R.I-11	Supply of Rubber Beading for glass fixing	1 RM	6
924	TBSC-R.I-12	Supply of Soft Brush for painting, varnishing etc	Each	157
925	TBSC-R.I-13	Supply of Wire Brush for scraping	Each	38
926	TBSC-R.I-14	Providing and fixing PVC door cladding to the	1 Sqm	417

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		flush door's shutters, for the new doors it shall be pasted with synthetic glue or nailed to the old doors. complete as per direction of Engineer-in-charge, manufacturers specification and drawing - 1 mm thick		
927	TBSC-R.I-15	Providing and fixing PVC door cladding to the flush door's shutters, for the new doors it shall be pasted with Synthetic glue SSR 998 or nailed to the old doors. complete as per direction of Engineer-in-charge, manufacturers specification and drawing - 1.5 mm thick	1 Sqm	475
928	TBSC-R.I-16	Providing and fixing PVC door cladding to the flush door's shutters, for the new doors it shall be pasted with Synthetic glue SSR 998 or nailed to the old doors. complete as per direction of Engineer-in-charge, manufacturers specification and drawing - 2.0 mm thick	1 Sqm	537
929	TBSC-R.I-17	Supplying and fixing aluminium composite cladding with skin material 0.25 mm thick aluminium sheet cover material natural polyethylene aluminium cladding panel fixed with extruded aluminium basis frame (50x25x1.5mm) angle cleats, weather sealants, rivets, GI brackets all as approved, using suitable bolts on structural steel work including necessary accessories complete in all respects including labour charges etc., complete for finished item of work but excluding cost of structural steel fabrication, scaffolding charges, if any, ACP Cladding - 3 mm thick	1 Sqm	2809
930	TBSC-R.I-18	Supplying and fixing aluminium composite cladding with skin material 0.25 mm thick aluminium sheet cover material natural polyethylene aluminium cladding panel fixed with extruded aluminium basis frame (50x25x1.5mm) angle cleats, weather sealants, rivets, GI brackets all as approved, using suitable bolts on structural steel work including necessary accessories complete in all respects including all labour charges etc., complete for finished item of work but excluding cost of structural steel fabrication, scaffolding charges, if any, ACP Cladding - 4 mm thick	1 Sqm	3063
931	TBSC-R.I-19	Supplying and fixing aluminium composite cladding with skin material 0.5 mm thick aluminium sheet cover material natural polyethylene aluminium cladding panel fixed with extruded aluminium basis frame (50x25x1.5mm) angle cleats, weather sealants, rivets, GI brackets all as approved, using suitable bolts on structural steel work including necessary accessories complete in all respects including all labour charges etc., complete for finished item of work but excluding cost of structural steel fabrication, scaffolding charges, if any, ACP Cladding - 4 mm thick	1 Sqm	3434

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
932	TBSC-R.I-20	S&F of pre-cast RCC Grills of any design of 25 mm thick manufactured with M-30 grade of concrete using vibro-compaction process using joint less FRP moulds to achieve shuttering finish and adequately reinforced for long use and to prevent damage during handling, transportation & erection etc.,	1 Sqm	407
933	TBSC-R.I-21	S&F of pre-cast RCC Grills of any design of 40 mm thick manufactured with M-30 grade of concrete using vibro-compaction process using joint less FRP moulds to achieve shuttering finish and adequately reinforced for long use and to prevent damage during handling, transportation & erection etc.,	1 Sqm	566
934	TBSC-R.I-22	S&F of pre-cast RCC Grills of any design of 50 mm thick manufactured with M-30 grade of concrete using vibro-compaction process using joint less FRP moulds to achieve shuttering finish and adequately reinforced for long use and to prevent damage during handling, transportation & erection etc.,	1 Sqm	665
935	TBSC-R.I-23	Supply of Aluminium sheet 24 Gauge	1 Sqm	323
936	TBSC-R.I-24	Supply of 7.5mm thick Aluminium Grill (as approved by the department) 3.58 Kg/1 Sqm	1 Sqm	1187
		Design, fabrication & supply of light weight pre-engineered buildings for a maximum span of 9 meters with 50 x 50 x 2.8 mm M.S hollow square tubes for columns, trusses & purlins walls with sandwich panels made up of 2 Nos 10mm thick cement bonded particle/ fibre boards with 25mm thick 12 kg/cum density expanded polystyrene in between encased in 1.25 mm thick 24x7x26 mm 'W' tracks in bottom & top and 'H' section for sides with doors, windows & ventilators, roofing with 26 gauge pre painted profiled sheets fixed with self-tapping/ drilling screws, painting with enamel paint for steel items, OBD for interiors and ace for exteriors & providing base plates, templates & anchor bolts along with civil foundation designs & drawings for the finished item of work		
937	TBSC-R.I-25	Steel Structure: - Structure is made up of 50x50x2.8 m/33x66x2.8mm thick hollow M.S. sections for -Columns and purlins	1 RM	459
938	TBSC-R.I-26	Steel Structure: - Structure is made up of 50x50x2.8 m/33x66x2.8mm thick hollow M.S. sections for Trusses	1 RM	2304
939	TBSC-R.I-27	10 mm thick 200 X 200 mm M.S Plates for base plates, 250mm long 12mm anchor bolts with plate washer and nuts complete with one coat of Asian or equivalent red oxide paint	Each	779
940	TBSC-R.I-28	Sandwich panels: Sandwich panels of 50 mm thick with 25 mm Thermocol of 12 kg / cum, fixed in between 2 Nos 10 mm cement bonded wood particle / fibre boards properly fixed together with 30 mmx30mmx30mm wood pieces along	1 Sqm	1658

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		width & length wherever necessary		
941	TBSC-R.I-29	U' Tracks & 'H' Section:- Bottom & Top 'U' Tracks are made of 1.25 mm thick 120 GSM G.I. Sheet of size 24x51x26 mm size.	1 RM	181
942	TBSC-R.I-30	G I 'H' Section is made up of forming width of 275 mm single sheet roll formed in the shape of "H" section without any welding joint. 40mm width for flanges and 51 mm for web to hold 50 mm Sandwich panel	1RM	296
943	TBSC-R.I-31	Sandwich Panel joinery is made up of couplers or equivalent made from 0.6 mm G.I. roll formed section to hold 2 Nos of 10 mm board on both sides with 25 mm Thermocol in between.	1 RM	351
944	TBSC-R.I-32	150 mm X 150 mm X 2.0 mm size M. S. Corner Cover Plate	1 RM	421
945	TBSC-R.I-33	Window:- windows are made up of 51 x51 mm step 'U' section made from 1.25 thick MS Cold rolled Steel Sheet and Windows Shutters & Grill are made of 48x25mm mm size pre painted section with 4 mm glass complete with necessary hardware. Grills are made from 8 mm square rod at 100 mm spacing.	1 Sqm	4825
946	TBSC-R.I-34	Door Frames :-51 X 51 Stepped ' U' section made from 1.25 mm thick C.R. section with a 32 mm rebate for 30 mm flush door and Door Shutters with 30 mm thick block board / flush doors with boiling waterproof plywood complete with necessary Hardware.	1 Sqm	4617
947	TBSC-R.I-35	Ventilators:- Ventilators are made of 51x51 mm step 'U' section made From 1.25 mm thick C.R. sheet with fixed louvers and glass.	1 Sqm	5167
948	TBSC-R.I-36	Painting:-1) Steel structure is to be painted with 2 coats of Grade I enamel paint.	1 Sqm	132
949	TBSC-R.I-37	2) Exterior walls are painted with one coast of primer and 2 coats of exterior emulsion paint .	1 Sqm	119
950	TBSC-R.I-38	3) Interiors are painted with 1+2 coat of O.B.D.	1 Sqm	104
951	TBSC-R.I-39	Toilets: - Toilets are provided as per plan with a provision for fixing the wash basin, W.C. etc only is made with M.S. steel section secured to the walls with toilet bracket provision excluding cost of WC/ Wash basin etc	Each	1105
952	TBSC-R.I-40	Sunshades: - Sun shades will be provided wherever necessary with 300 mm more than the width of window. 25x25 mm angle frame to cover 450 mm in the front and the sides. 10mm cement bonded particle board will be fixed on the framework and sealed with green paste or equivalent.	Each	3722
953	TBSC-R.I-41	Roofing: - Roofing will be provided with 0.5mm thick galvanized / pre painted G.I. profiled sheets fixed to the purlins with 14 size self-drilling screws with neoprene washer. Side laps are stitched with self-tapping / drilling screws. End laps are to be sealed with 25x3 mm Butyl tape. The sheets are provided with anti-capillary grove.	1 Sqm	842

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
954	TBSC-R.I-42	Preparing gabions with jungle wood	Each	6
955	TBSC-R.I-43	Planting plants	Each	6
956	TBSC-R.I-44	Pruning plants	Each	6
957	TBSC-R.I-45	Maintaining avenues including fencing, weeding, mulching, watering etc per plant.	Each	10
958	TBSC-R.I-46	Maintaining avenues including fencing, weeding, mulching, watering etc per plant When scattered in hot weather with extra conveyance from March to June	Each	11
959	TBSC-R.I-47	Hoisting or lowering of slab	1 cum	129
960	TBSC-R.I-48	Drilling holes in hard rock surfaces up to 18mm Diameter	1 RM	361
961	TBSC-R.I-49	Drilling holes in hard rock above 18mm Diameter	1 RM	501
962	TBSC-R.I-50	Making holes up to 18mm Diameter in RCC/ any stones up to 50 mm thick	1 Each	60
963	TBSC-R.I-51	Making holes above 18mm Diameter in RCC/ any stones above 50 mm thick	1 Each	83
964	TBSC-R.I-52	Supplying EPDM Gasket for windows panes to the PPS shutter	1 RM	37
965	TBSC-R.I-53	Supplying SS 304 Grade Heavy Duty Pivot Hinges for windows	1 Each	92
966	TBSC-R.I-54	Making holes in Brick Masonry up to 12 mm dia up to 100 mm thick	1 Each	19
967	TBSC-R.I-55	Making holes in Brick Masonry up to 12 mm dia up to 150 mm thick	1 Each	23
968	TBSC-R.I-56	Designing, supplying and fixing/ erecting Cable and/or frame supported tensioned membrane-covered fabric structure; incorporating a fabric with low elongation characteristics under tension and capable of an anticlastic configuration, the Tensile Membrane structure using PET yarns covered with a thicker PVC-coating/ PVDF coating of 900 GSM on both sides to protect the fabric with properties of Anti-Wicking, Maximum Tensile Strength 5000/4300 N/cm ² , Tear Resistance 600/500 N, Adhesion 140 N/cm ² , cold and heat resistance in range - 50 to 70 degrees centigrade, light fastness ≥ 7 , light transmission 6.46%, radiation transmission 7.79% complete for finished item of work including cables and fittings, Perimeter, catenary, and sectionalized aluminium clamping system, Structural steel, including masts, trusses, struts, and beams as indicated on the drawings, Fasteners and gaskets etc with a warranty of 20 years	1 Sqm	3088
969	TBSC-R.I-57	Providing and fixing truly levelled and aligned structure made of MS angle of 35x35x3mm thick with 150/225mm x 1830mm x 12mm non asbestos fibre cement eaves board pre painted and designed Density >1225 Kg/m ³ Modulus of Rupture 15.85 MPA, Thermal conductivity 0.0862 W/mk confirming to IS 14862 and Type B category III of ISO 8336, reaction to fire A2-s1d0 tested as per EN 13801 Part 1 and BS 476 Part 4,5,6,7 with the help of full thread flat head steel or copper screws. The MS angle should be fixed on to the	1 RM	998

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		soffit with 6mm dia anchor fastener on 620mm cc. Finally, the board should be painted with exterior paint. The gaps between the boards should be filled with paintable sealant. All complete as per the drawing and directions of Engineer-in-Charge		
970	TBSC-R.I-58	Providing and fixing 50mm thick Non asbestos fibre reinforced aerated cement sandwich modules made out of light weight fibre reinforced aerated cement/concrete core composed of Portland cement, flyash, binders etc and 4mm thick High pressure steam cured non asbestos fibre cement standard board Density>1200kg/m ³ confirming to IS 14862 and Type B category III of ISO 8336 E tested as per AS 1530 part 3 and BS 476 Part 4,5,6,7 on either side of the core having a tongue and groove on longitudinal side of the modules. These solid wall panel should be equivalent to ISO 354-1985, ASTM 423-90 and BS 476 Part 22 1987, IS 8225-1987 modules are erected/installed using galvanized iron steel tracks of 1mm thick and of size 15x51x25mm as bottom track, 25x51x25mm as top track for fixing to the floor and top of the wall respectively including all necessary materials required for erecting and fixing all panel complete as per direction of Engineer-in-Charge	1 Sqm	215
971	TBSC-R.I-59	Providing and fixing 75mm thick Non asbestos fibre reinforced aerated cement sandwich modules made out of light weight fibre reinforced aerated cement/concrete core composed of Portland cement, flyash, binders etc and 4mm thick High pressure steam cured non asbestos fibre cement standard board Density>1200kg/m ³ confirming to IS 14862 and Type B category III of ISO 8336 E tested as per AS 1530 part 3 and BS 476 Part 4,5,6,7 on either side of the core having a tongue and groove on longitudinal side of the modules. These solid wall panel should be equivalent to ISO 354-1985, ASTM 423-90 and BS 476 Part 22 1987, IS 8225-1987 modules are erected/installed using galvanized iron steel tracks of 1mm thick and of size 15x77x25mm as bottom track, 25x77x25mm as top track for fixing to the floor and top of the wall respectively including all necessary materials required for erecting and fixing all panel complete as per direction of Engineer-in-Charge	1 Sqm	269
972	TBSC-R.I-60	Roofing with Durasteel Roofs as per ER-32-251 Galvalume AZ150/PPGI of thickness 0.50mm thick with a tensile strength of 225 Mpa	1 Sqm	535
973	TBSC-R.I-61	Roofing with 6mm Non asbestos cement roofing sheets in natural stone-grey confirming to BIS 14871: 2000 in standard width of 1097mm and length of 1m	1 Sqm	412
974	TBSC-R.I-62	Supply and Fixing of 84MM Thick Hollow Glass	1 Sqm	13793

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		blocks , as directed by the Engineer- in-charge including cost of overheads & contractors profit etc., complete for finished item of work.		
975	TBSC-R.I-63	Supplying and laying Solid Wood Flooring of thickness 18 mm cut down to desired size using natural 100% wood board drawn and sawn from one piece of solid wood Oak, American Walnut, Burma Teak, Cumaru, Jatoba etc., including preparing the surface with 5 - 7 mm thick POP treatment, supplying 3 mm thick foam sheet and HDPE Plain Black Polythene Sheet, Tarpaulin Grade: GSM 150, Thickness: 100 Microns Sheeting to receive the wooden flooring	1 Sqm	4275
976	TBSC-R.I-64	Supplying and laying Engineered Wooden Flooring of thickness 14 mm and varying width (53 to 207 mm) reapers of varying length in tongue and groove shape, the edges of the boards with finger lock groove and the bottom side with air pass groove using good quality Engineered Wood comprising of top layer of 3-4 mm thick specie wood drawn and sawn from one piece of solid wood Oak, American Walnut, Burma Teak, Cumaru, Jatoba etc., and bottom layer of 12-15 mm is wooden, spruce or pine or plywood Tongue and Groove 4 Sides machined to a hundredth of a millimetre, with bevelled tongue in a tongue & groove section for easy jointing including preparing the surface with 5 - 7 mm thick POP treatment, supplying 3 mm thick foam sheet and HDPE Plain Black Polythene Sheet, Tarpaulin Grade: GSM 150, Thickness: 100 Microns Sheeting to receive the wooden flooring	1 Sqm	3799
977	TBSC-R.I-65	Supplying and laying Laminate Wooden Flooring of thickness 8 mm and 53 to 92 mm wide reapers of varying length in tongue and groove shape, the edges of the boards with finger lock groove and the bottom side with air pass groove using good quality multi-layer synthetic flooring product, fused together with a lamination process the core layer with high-density fibreboard (HDF) including preparing the surface with 5 - 7 mm thick POP treatment, supplying 3 mm thick foam sheet and HDPE Plain Black Polythene Sheet, Tarpaulin Grade: GSM 150, Thickness: 100 Microns Sheeting to receive the wooden flooring	1 Sqm	951
978	TBSC-R.I-66	Supplying and Installation of Sports Flooring system of overall 80 mm thick (a+b+c) of which the top layer is of thickness (a) 22 mm and 53 to 92 mm wide reapers of varying length in tongue and groove shape, the edges of the boards with finger lock groove and the bottom side with air pass groove using natural 100% hardwood board drawn and sawn from one piece of solid wood Maple, Teak wood, Oak, etc., the under frame-made of pine wood runners of (b) 38 mm x 70 mm, treated with anti-termite solution and fixed	1 Sqm	7125

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		on the bottom side with (c) 20 mm thick EPDM air cushioned pads, stapled through the two wings at 350 m x 350 mm c/c, including laying HDPE Plain Black Polythene Sheet, Tarpaulin Grade: GSM 150, Thickness: 100 Microns Sheeting on existing IPS / RCC subfloor treated with a vapor barrier to be placed on the levelled IPS / RCC sub floor before laying the under frame, the runners having air cushion pads to be placed on the vapor barrier in perfect level at 350mm in 1 direction, the surface board to be screwed to the runner through the tongue only and will lock the screwed tongue by the groove of adjoining board, ends of the boards to be locked by inserting the wooden fingers through the edge grooves and fixed with suitable adhesive, an expansion of 12 to 15 mm to be left open between the wooden flooring and the surrounding tiled area / walls, duly finishing with machine sanded in uniform level and finishing with P.U. POLISHING water based polyurethane lacquer, etc, including game line marking to be carried out in required colours before applying the finishing coat, complete for finished item		
979	TBSC-R.I-67	Unlined Flax Canvas Hose pipe 3" size for firefighting as per IS 4927 : 1992	1 Rm	61
980	TBSC-R.I-68	Round cover blocks of M60 grade with cover size of 25 mm confirming to IS Code 456:200 section 26.4. 1 .	Each	5
981	TBSC-R.I-69	Round cover blocks of M60 grade with cover size of 40 mm confirming to IS Code 456:200 section 26.4. 1 .	Each	8
982	TBSC-R.I-70	Round cover blocks of M60 grade with cover size of 50 mm confirming to IS Code 456:200 section 26.4. 1 .	Each	9
983	TBSC-R.I-71	Slab cover blocks of M60 grade with cover size of 20 mm confirming to IS Code 456:200 section 26.4. 1 .	Each	4
984	TBSC-R.I-72	Trapezoidal cover blocks of M60 grade with cover size of 75 mm confirming to IS Code 456:200 section 26.4. 1 .	Each	8
985	TBSC-R.I-73	Multiple cover blocks of M60 grade with cover size of -20*25*40*50mm and confirming to IS Code 456:200 section 26.4. 1 .	Each	5
986	TBSC-R.I-74	Multiple cover blocks with holes of M60 grade with cover size of 20*25*40*50mm confirming to IS Code 456:200 section 26.4. 1 .	Each	5
987	TBSC-R.I-75	Multiple cover blocks of M60 grade with cover size of 30mm*35mm confirming to IS Code 456:200 section 26.4. 1 .	Each	5
988	TBSC-R.I-76	Supply of Aluminium heat-treated sections for windows, structural glazing and other sections of 6063 grade and tempered grade of T6 and above for high strength applications	1 Kg	395
989	TBSC-R.I-77	Supply & Laying of Artificial Green Grass made of Polyamide & Polypropylene yarn for real time	1 sqm	1140

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		appurtenance, the thickness of the grass in pile height of 25mm with density -10500, Tuft GSM 750, Tuft withdrawal force -17.4 lbs, with a warranty of 4yrs, including transportation, installation, finishing and handover documentation etc complete for finished item of work.		
990	TBSC-R.I-78	Supply & Laying of Artificial Green Grass made of Polyamide & Polypropylene yarn for real time appurtenance, the thickness of the grass in pile height of 35mm with density -10500, Tuft GSM 800, Tuft withdrawal force -17.4 lbs, with a warranty of 4yrs, including transportation, installation, finishing and handover documentation etc complete for finished item of work.	1 sqm	1446
991	TBSC-R.I-79	Supply & Laying of Artificial Green Grass made of Polyamide & Polypropylene yarn for real time appurtenance, the thickness of the grass in pile height of 45mm with density -10500, Tuft GSM 1030, Tuft withdrawal force -17.4 lbs, with a warranty of 4yrs, including transportation, installation, finishing and handover documentation etc complete for finished item of work.	1 sqm	1757
992	TBSC-R.I-80	Providing and Fixing of Stone polymer composite tile of thickness of 4 mm Click-N-Lock tiles with wear layer is of 0.3mm, and has an IXPE Cushion backing of 1 mm, 100% Water & Termite proof, Scratch / Fire / UV resistant, a Recyclable Green product having WEL- LOCK click system with suitable skirting, classification of abrasion resistance (Rubbing action of two abrading wheels of S-42 Type, load Applied 500 grams, No. of Cycles 4,200), Resistance to impact(ASTM F1265), scratch resistance (Micro Scratch EN 16094 : 2012), resistance to Chemical of resilient flooring (ASTM F925-13), with a warranty of 5 years, for Indoor application only, low & semi traffic areas, complete for finished item of work.	1 sqm	2016
993	TBSC-R.I-81	Providing and Fixing of Stone polymer composite tile of thickness of 5 mm Click-N-Lock tiles with wear layer is of 0.5mm, and has an IXPE Cushion backing of 1 mm, 100% Water & Termite proof, Scratch / Fire / UV resistant, a Recyclable Green product having WEL- LOCK click system with suitable skirting, classification of abrasion resistance (Rubbing action of two abrading wheels of S-42 Type, load Applied 500 grams, No. of Cycles 4,200), Resistance to impact(ASTM F1265), scratch resistance (Micro Scratch EN 16094 : 2012), resistance to Chemical of resilient flooring (ASTM F925-13), with a warranty of 5 years, for Indoor application only, low & semi traffic areas, complete for finished item of work.	1 sqm	2406
994	TBSC-R.I-82	Supply and installation of polymer concrete drain	1 RM	8750

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		channel (ACO or Equivalent) of dimensions L1000 W(118/98) H97 made of polymer concrete single slot grating and access units in SS; 100mm slot, 25mm height, A15 Load class, including cap, inspection boxes required as per drawings approved by the Architect, including the cost of PCC or Cement Mortar bed upto 50mm, surface preparation, channel to channel jointing with polyurethane sealant with masking tape, lift charge, conveyance and all incidentals as per the instructions of Engineer-in-charge.		
II	SUB-SECTION	NYLON CARPETS		
995	TBSC-R.II-01	Supply and installation of Modular Nylon Carpet with 100% Solution Dye PET Yarn, Tufted loop & Multi level loop, with Yarn weight of 500 GSM (30 Oz/ sq. Yd) and total tile weight min 2200 gsm, Tile Density 5400 gram per cubic meter or above, pile height 2.5 mm and tile total thickness 5.0mm, with Primary backing of Multi-layer Eucolite PVC and Fibre Glass back as secondary backing of Size 50 X 50 cm and the product when tested and certified complying the (a) Indoor Air Quality - GLP2526 , (b) Flooring Radiant Panel - Class1 (ASTM E-648, Made in India, (c) Smoke Density - Less than 450 (ASTM E-662) Less than 3.5 kV (AATCC-134), (d) Lightfastness - Pass and with a Product Warranty 10 Years, (e) Surface Flammability of Carpets and Rugs (ASTM D2859), including installation of carpet tile on a level surface (existing VDF/ tiled floor) using High quality, low VOC water soluble adhesive and protected with 2 Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.	1 sqm	1503
996	TBSC-R.II-02	Supply and installation of Modular Nylon Carpet with 100% Solution Dye Nylon, Tufted loop & Multi level loop, with Yarn weight of 610 GSM (18 Oz/ sq. Yd) and total tile weight min 2400 gsm, Tile Density 5600 gram per cubic meter or above, pile height 2.5-2.75 mm and tile total thickness 5.25-5.50mm, with Primary backing of Multi-layer Eucolite PVC and Fibre Glass back as secondary backing of Size 50 X 50 cm or 25 x 100 cm and the product when tested and certified complying the (a) Indoor Air Quality - GLP2526 , (b) CRI Green label certificate for LEED Building points, (c) Flooring Radiant Panel - Class1 (ASTM E-648, Made in India, (d) Smoke Density - Less than 450 (ASTM E-662) Less than 3.5 kV (AATCC-134), (e) Lightfastness - Pass and with a Product Warranty 10 Years, (f) Surface Flammability of Carpets and Rugs (ASTM D2859), including installation of carpet tile on a level surface (existing VDF/ tiled floor) using High quality, low VOC water soluble adhesive and protected with 2	1 sqm	2047

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.		
997	TBSC-R.II-03	Supply and installation of Modular Nylon Carpet with 100% Solution Dye Nylon, Tufted loop & Multi level loop, with Yarn weight of 900 GSM (30 Oz/ sq. Yd) and total tile weight min 3600 gsm, Tile Density 8900 gram per cubic meter or above, pile height 3.5-3.75 mm and tile total thickness 6.25-6.75mm, with Primary backing of Multi-layer Eucolite PVC and Fibre Glass back as secondary backing of Size 50 X 50 cm or 25 x 100 cm and the product when tested and certified complying the (a) Indoor Air Quality - GLP2526 , (b) CRI Green label certificate for LEED Building points, (c) Flooring Radiant Panel - Class1 (ASTM E-648, Made in India, (d) Smoke Density - Less than 450 (ASTM E-662) Less than 3.5 kV (AATCC-134), (e) Lightfastness - Pass and with a Product Warranty 10 Years, (f) Surface Flammability of Carpets and Rugs (ASTM D2859), including installation of carpet tile on a level surface (existing VDF/ tiled floor) using High quality, low VOC water soluble adhesive and protected with 2 Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.	1 sqm	2980
998	TBSC-R.II-04	Supplying and Fixing of Nylon broadloom carpet, 100% Nylon Cut Pile, Digitally Printed, Pile Height 7 mm (± 1 mm), Total Height 11 mm (± 1 mm), Stitch / 10 cm 37-39 ($\pm 2\%$), Pile Weight Net less Than 800 GSM ($\pm 5\%$), Total Weight 1791 GSM ($\pm 5\%$), Secondary Backing PP Mesh, Gauge 1/8 Cut Pile, Latex Natural Rubber, the product with minimum 5 Years warranty for any manufacturing defects when tested and certified complying the Colour fastness to Light Test Method of AATCC 16 (20 AFU) ≥ 4.0 at 80 Hours , Static Electricity, AATCC 134 Less than 3.5 KV, Hexapod test Method: ASTM D 5252 ≥ 4 , Flammability (Radiant Panel), Anti-Bacterial & Anti-Microbial, ASTM E 648 ≥ 0.45 (Class I), complete as per specifications, the carpet and underlay (min 6 -8 mm) installed with standard SR 998/SR505/MAPA Adhesives, the flooring installed as per the manufacture's specification and protected with 2 Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.	1 sqm	2954
999	TBSC-R.II-05	Supplying and Fixing of Nylon broadloom carpet 100% Nylon Cut Pile , Digitally Printed , Pile Height 8.5 mm (± 1 mm), Total Height 10.5 mm (± 1 mm), Stitch / 10 cm 40.5($\pm 2\%$), Pile Weight Net less Than 1200 GSM ($\pm 5\%$), Total Weight 2186	1 sqm	3814

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		GSM ($\pm 5\%$), Secondary Backing PP Mesh, Gauge 1/8 Cut Pile, Latex Natural Rubber, the product with minimum 5 Years warranty for any manufacturing defects when tested and certified complying the Colour fastness to Light Test Method of AATCC 16 (20 AFU) ≥ 4.0 at 80 Hours , Static Electricity, AATCC 134 Less than 3.5 KV, Hexapod test Method: ASTM D 5252 ≥ 4 , Flammability (Radiant Panel), Anti-Bacterial & Anti-Microbial, ASTM E 648 ≥ 0.45 (Class I), complete as per specifications, the carpet and underlay (min 6 -8 mm) installed with standard SR 998/SR505/MAPA Adhesives, the flooring installed as per the manufacture's specification and protected with 2 Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.		
1000	TBSC-R.II-06	Supplying and Fixing of Nylon broadloom carpet 100% Nylon Cut Pile , Digitally Printed , Pile Height 10 mm (± 1 mm),Total Height 12 mm (± 1 mm),Stitch / 10 cm 46 ($\pm 2\%$), Pile Weight Net less Than 1500 GSM ($\pm 5\%$), Total Weight 2486 GSM ($\pm 5\%$), Secondary Backing PP Mesh, Gauge 1/8 Cut Pile, Latex Natural Rubber, the product with minimum 5 Years warranty for any manufacturing defects when tested and certified complying the Colour fastness to Light Test Method of AATCC 16 (20 AFU) ≥ 4.0 at 80 Hours , Static Electricity, AATCC 134 Less than 3.5 KV, Hexapod test Method: ASTM D 5252 ≥ 4 , Flammability (Radiant Panel), Anti-Bacterial & Anti-Microbial, ASTM E 648 ≥ 0.45 (Class I), complete as per specifications, the carpet and underlay (min 6 -8 mm) installed with standard SR 998/SR505/MAPA Adhesives, the flooring installed as per the manufacture's specification and protected with 2 Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.	1 sqm	4684
III	SUB-SECTION	ACRYLIC SOLID SURFACES		
1001	TBSC-R.III-01	Supply of acrylic solid surfaces made from acrylic resins and natural materials that are non-porous complying with NSF.51 of thickness 6 mm and plain coloured	1 sqm	6725
1002	TBSC-R.III-02	Supply of acrylic solid surfaces made from acrylic resins and natural materials that are non-porous complying with NSF.51 of thickness 12 mm and plain coloured	1 sqm	9415
1003	TBSC-R.III-03	Supply of acrylic solid surfaces made from acrylic resins and natural materials that are non-porous complying with NSF.51 of thickness 6 mm and stone designs and coloured with natural grains	1 sqm	9415
1004	TBSC-R.III-04	Supply of acrylic solid surfaces made from acrylic resins and natural materials that are non-porous	1 sqm	12665

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		complying with NSF.51 of thickness 12 mm and stone designs and coloured with natural grains		
IV	SUB-SECTION	GARBAGE BINS		
1005	TBSC-R.IV-01	Supply of Plastic Garbage bins Made out of high-quality premium grade UV Stabilized Virgin Polyethylene material, with inside-out smooth finish and non-toxic in nature, having crisscross ribs provided at the bottom and vertical ribs provided at all four-corner side of the bins to prevent corner breakages during regular usage including lid with two side opening for easy garbage collection of the bins size 40 litre capacity	Each	750
1006	TBSC-R.IV-02	Supply of Plastic Garbage bins Made out of high-quality premium grade UV Stabilized Virgin Polyethylene material, with inside-out smooth finish and non-toxic in nature, having crisscross ribs provided at the bottom and vertical ribs provided at all four-corner side of the bins to prevent corner breakages during regular usage including lid with two side opening for easy garbage collection of the bins size 80 litre capacity	Each	1400
1007	TBSC-R.IV-03	Supply of Plastic Garbage bins Made out of high-quality premium grade UV Stabilized Virgin Polyethylene material, with inside-out smooth finish and non-toxic in nature, having crisscross ribs provided at the bottom and vertical ribs provided at all four-corner side of the bins to prevent corner breakages during regular usage including lid with two side opening for easy garbage collection of the bins size 100 litre capacity	Each	1900
1008	TBSC-R.IV-04	Supply of Plastic Garbage bins Made out of high-quality premium grade UV Stabilized Virgin Polyethylene material, with inside-out smooth finish and non-toxic in nature, having crisscross ribs provided at the bottom and vertical ribs provided at all four-corner side of the bins to prevent corner breakages during regular usage including lid with two side opening for easy garbage collection of the bins size 100 litre capacity with trolley wheels	Each	2300
1009	TBSC-R.IV-05	Supply of Plastic Garbage bins Made out of high-quality premium grade UV Stabilized Virgin Polyethylene material, with inside-out smooth finish and non-toxic in nature, having crisscross ribs provided at the bottom and vertical ribs provided at all four-corner side of the bins to prevent corner breakages during regular usage including lid with two side opening for easy garbage collection of the bins size 120 litre capacity with trolley wheels	Each	2900
V	SUB-SECTION	ANCHOR FASTENERS - WEDGE/ EXPANSION/ SLEEVE		
1010	TBSC-R.V-01	Supply of Anchor fasteners Wedge/ Expansion/	Each	10

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Sleeve type of material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 6 mm		
1011	TBSC-R.V-02	Supply of Anchor fasteners Wedge/ Expansion/ Sleeve type of material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 8 mm	Each	20
1012	TBSC-R.V-03	Supply of Anchor fasteners Wedge/ Expansion/ Sleeve type of material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 10 mm	Each	30
1013	TBSC-R.V-04	Supply of Anchor fasteners Wedge/ Expansion/ Sleeve type of material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 12 mm	Each	40
1014	TBSC-R.V-05	Supply of Anchor fasteners Wedge/ Expansion/ Sleeve type of material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 16 mm	Each	50
1015	TBSC-R.V-06	Supply of Anchor fasteners Wedge/ Expansion/ Sleeve type of material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 18 mm	Each	60
VI	SUB-SECTION	ANCHOR FASTENERS - CHEMICAL BONDING		
1016	TBSC-R.VI-01	Supply of Anchor fasteners with chemical bonding, with recommended use of approved chemical injection system of for the anchor bolt material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 6 mm	Each	20
1017	TBSC-R.VI-02	Supply of Anchor fasteners with chemical bonding, with recommended use of approved chemical injection system of for the anchor bolt material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or	Each	40

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 8 mm		
1018	TBSC-R.VI-03	Supply of Anchor fasteners with chemical bonding, with recommended use of approved chemical injection system of for the anchor bolt material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 10 mm	Each	60
1019	TBSC-R.VI-04	Supply of Anchor fasteners with chemical bonding, with recommended use of approved chemical injection system of for the anchor bolt material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 12 mm	Each	80
1020	TBSC-R.VI-05	Supply of Anchor fasteners with chemical bonding, with recommended use of approved chemical injection system of for the anchor bolt material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 16 mm	Each	100
1021	TBSC-R.VI-06	Supply of Anchor fasteners with chemical bonding, with recommended use of approved chemical injection system of for the anchor bolt material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 18 mm	Each	120
VII	SUB-SECTION	PASSIVE FIRE STOP SYSTEM		
1022	TBSC-R.VII-01	Supplying and applying, non-shrinking Portland cement-based, non-intumescent firestop mortar, lightweight cementitious and with a test certificate in accordance with IEC 60068-2-57:1999-11 (Environmental Testing) as per Part 2-67 tested as per Dafatb and DIBT standards, mould resistance rating of 0 as determined by ASTM 021-96, UL-listed & classified with UL and FM approval logo on the packing, as per UL 1479/ASTM E 814 or IS 12458 standards	sqm	24641
1023	TBSC-R.VII-02	Supplying and applying expanding firestop foam, with minimum 2 hours fire rating tested in accordance with UL 1479/ASTM-E 614, for horizontal openings in floors or slabs made of concrete/ masonry or Gypsum after passing	1 Sqm	34422

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		service lines like cable trays or cables/cable bundles with and expansion of seven times its volume to fill the cavity at the time of dispensing the material and shall fully cure within two minutes after dispensing, tested as per Dafstb and DIBT standards, W rating as per UL standards with sound insulation of 50 dB, mould resistance rating of 0 as determined by ASTM G21-56 and shall have a VOC content of approx. 1.3 g/l as per LEED 2009, in accordance with IEC 60068-2-57:1999-11 (Environmental Testing) as per Part 2-67, UL listed & classified and UL and FM approval logo on the packing		
1024	TBSC-R.VII-03	Supplying and applying Acrylic Firestop Sealant in gaps around non-combustible penetrants like ducts or metal pipes passing through floor slab to provide a minimum 2 hours fire rating, UL 1479/ASTME 814 standards, as per DAfStb guidelines with MAF, water and gas tight seal, airborne sound transmission reduction (STC of 50), sound insulation, mould resistance rating of 0 as determined by ASTM G21-96 and VOC content of approx. 75 g/l as per LEED 2009, in accordance with IEC 60068-2-57:1999-11 (Environmental Testing) as per Part 2-57, UL listed & classified and with UL and FM approval logo on the packing	1 Sqm	5315
1025	TBSC-R.VII-04	Supplying and applying high performance intumescent firestop sealant around combustible penetrations like plastic pipes or ducts/pipes with insulation passing through floor to provide minimum 2 hours fire rating when subject to test standards of UL 1479/ASTM-E 814, surface burning characteristics according to UL 723 (ASTM E84-96), flame spread index 0 and smoke development index 5, sound transmission classification of 66 as per ASTM E 90-99, mould and mildew resistance Class 0 according to ASTM G-21, movement capability approx.. 8% (150 11600) and the average volume shrinkage is 24% according to ASTM C1241, sealant to meet LEED requirements for indoor environmental quality credit (4.1 and 4.2) with a VOC content of 9 g/l, as per Dafstb and DIBT standards, UL listed & classified and bear the UL and FM approval logo.	1 Sqm	8560
S	SECTION	MACHINERY & OTHER HIRE CHARGES		
1026	TBSC-S.I-01	Machine charges of rubbing/ polishing floor	1 Hr	324
1027	TBSC-S.I-02	Power Saw Cutter - Hand Operated - Hire charges	1 Hr	152
1028	TBSC-S.I-03	Power Drill - Hand Operated - Hire Charges	1 Hr	142
1029	TBSC-S.I-04	Grinding Mortar (Special Grinding)	1 Hr	163
1030	TBSC-S.I-05	Casuarinas Balli Props - 3" to 4" Diameter - 12'-0" Height	Each	90
1031	TBSC-S.I-06	Casuarinas Balli Props - 4" to 8" Diameter - 20'-0" Height	Each	148
1032	TBSC-S.I-07	Wall Plate Brackets / beam bottom supports	Each	259
1033	TBSC-S.I-08	Wedge Plate fixture	Each	14

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
1034	TBSC-S.I-09	Runner beams of approximately 4" x 4" size	RM	514
1035	TBSC-S.I-10	Steel Plates for form works	1 Sqm	1937
1036	TBSC-S.I-11	Scaffolding Pipes & Centering accessories	1 Kg	148
1037	TBSC-S.I-12	Scaffold Boards - Bamboo scaffolds - Bamboos - 8'0" long	Each	158
1038	TBSC-S.I-13	Hire charges for stationary Concrete pump conforming to IS 21573 Part-1: 2006 to deliver the fresh green concrete	1 Hr	414
1039	TBSC-S.I-14	Concrete delivery pipes conforming to IS 15947 Part I: 2012 to be connected to the pump to delivery point (150 mm Diameter) hire charges per 10 RM	1 Hr	8
T	SECTION	LABOUR CHARGES		
1040	TBSC-T.I-01	Bailing out water for earth work excavation /concrete for foundation below water level. (For building items only) - Other than sandy soil - 0.0 M to 1.0 M	1 cum	365
1041	TBSC-T.I-02	Bailing out water for earth work excavation /concrete for foundation below water level. (For building items only) - Other than sandy soil - 1.0 M to 2.0 M	1 cum	432
1042	TBSC-T.I-03	Bailing out water for earth work excavation /concrete for foundation below water level. (For building items only) - Other than sandy soil - 2.0 M to 3.0 M	1 cum	503
1043	TBSC-T.I-04	Bailing out water for earth work excavation / for concrete foundation below water level. (For building items only) Sandy soil - 0.0 M to 1.0 M	1 cum	579
1044	TBSC-T.I-05	Bailing out water for earth work excavation /for concrete foundation below water level. (For building items only) Sandy soil - 1.0 M to 2.0 M	1 cum	899
1045	TBSC-T.I-06	Bailing out water for earth work excavation /concrete for foundation below water level. (For building items only) Sandy soil - 2.0 M to 3.0 M	1 cum	1086
1046	TBSC-T.I-07	Labour charges for making, fabricating office racks, cup-board shutters etc with plywood/ MDF sheets, decolam/ veneer laminations including fixing cutting, making, assembling, fixing hinges, fixing fixtures, fixing locks, pasting sheets/ laminations fixing in position with necessary screws excluding cost of materials, accessories, fittings	1 Sqm	1535
1047	TBSC-T.I-08	Labour charges for making, fabricating kitchen furniture, cupboards with shutters, box cupboards, box racks, work-station furniture etc with plywood/ MDF sheets, decolam/ veneer laminations including fixing cutting, making, assembling, fixing hinges, fixing fixtures, fixing locks, pasting sheets/ laminations fixing in position with necessary screws excluding cost of materials, accessories, fittings	1 Sqm	2295
1048	TBSC-T.I-09	Labour charges for making, fabricating any aluminium door/ window/ glazing including fixing cutting, making, assembling, fixing hinges, fixing fixtures, fixing locks, fixing in position with necessary screws excluding cost of materials,	1 Sqm	710

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		accessories, fittings excluding cost of anodization		
1049	TBSC-T.I-10	Rounding the edges of Kadapa / Shahabad stone slabs of any thickness including polishing the same	1 Rm	158
1050	TBSC-T.I-11	Half Rounding the edges of Marble/ Granite stone slabs of all thicknesses including polishing the same.	1 Rm	479
1051	TBSC-T.I-12	Full Rounding the edges of Marble/ Granite stone slabs of all thicknesses including polishing the same.	1 Rm	620
1052	TBSC-T.I-13	Machine Cutting charges - for Marble/ Granite slabs up to 50 mm thick by mechanical device.	1 RM	26
1053	TBSC-T.I-14	Flat nosing to Kadapa/ Shahabad stone slabs of any thick	1 Rm	77
1054	TBSC-T.I-15	Grooves 2-3 mm	1 Rm	86
1055	TBSC-T.I-16	Labour charges for fabricating steel works like Window Grills, Compound Wall Grills, Iron Doors, Windows including cost of welding rods, power charges, excluding cost of fixing in position	1 Kg	39
1056	TBSC-T.I-17	Labour charges for fixing Iron Doors, Iron Windows and Window Grills in position	1 Kg	7
1057	TBSC-T.I-18	Labour charges for fabricating all structural steel works like heavy steel works like Trusses, Stanchions, Heavy Beams and Girders including cost of welding rods, power charges, etc excluding cost of fixing in position	1 Kg	36
1058	TBSC-T.I-19	Labour charges for erecting & fixing all structural steel works like heavy iron grills, Trusses, Stanchions, Heavy Beams and Girders erecting in position and fixing by using chain pulley blocks, Derek pole arrangements and cranes etc., complete in position	1 Kg	33
1059	TBSC-T.I-20	Labour charges for Fabrication of stainless-steel railing works using stainless steel welding rods including buffing, polishing, lacquer finishing, to present seamless finish	1 Kg	198
1060	TBSC-T.I-21	Labour charges for Fabrication of stainless-steel sheet cladding works using stainless steel welding rods including buffing, polishing, lacquer finishing, to present seamless finish	1 Sqm	2642
1061	TBSC-T.I-22	Labour charges for Glass designing works on any thickness of Glass including fixing at site - Etching works	1 Sqm	1438
1062	TBSC-T.I-23	Labour charges for Glass designing works on any thickness of Glass including fixing at site - Reverse Etching work	1 Sqm	1779
1063	TBSC-T.I-24	Labour charges for Glass designing works on any thickness of Glass including fixing at site - Acid wash works	1 Sqm	2223
1064	TBSC-T.I-25	Labour charges for fixing Flush door shutters of any thickness to the existing door frame including fixing the fixtures to the door shutter excluding cost of shutter	1 Sqm	578
1065	TBSC-T.I-26	Labour charges for fixing glass panes of any thickness to the existing door / windowpanes including fixing the beading excluding cost of	1 Sqm	431

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		beading		
1066	TBSC-T.I-27	Labour charges for wrought and put-up including fixing in position for Teak wood Fully panelled doors external or internal including frame	1 Sqm	2474
1067	TBSC-T.I-28	Labour charges for wrought and put-up including fixing in position for Teak wood Glazed and panelled doors including fixing glass including frame	1 Sqm	2323
1068	TBSC-T.I-29	Labour charges for wrought and put-up including fixing in position for Teak wood Framed and planked doors including frame	1 Sqm	2052
1069	TBSC-T.I-30	Labour charges for wrought and put-up including fixing in position for Teak wood Lugged, braced and planked doors including frame	1 Sqm	1605
1070	TBSC-T.I-31	Labour charges for wrought and put-up including fixing in position for Teak wood Flush type door shutter including frame	1 Sqm	1209
1071	TBSC-T.I-32	Labour charges for wrought and put-up including fixing in position for Teak wood Windows glazed including outer frame and shutter frame	1 Sqm	1570
1072	TBSC-T.I-33	Labour charges for wrought and put-up including fixing in position for Teak wood Windows panelled including outer frame and shutter frame	1 Sqm	2387
1073	TBSC-T.I-34	Labour charges for wrought and put-up including fixing in position for Teak wood Windows lugged, braced and planked including outer frame	1 Sqm	1631
1074	TBSC-T.I-35	Labour charges for wrought and put-up including fixing in position for Teak wood Windows framed and planked including outer frame and shutter frame	1 Sqm	1948
1075	TBSC-T.I-36	Labour charges for wrought and put-up including fixing in position for Teak wood Ventilators glazed, fixed with double frame with wire netting including frame	1 Sqm	1274
1076	TBSC-T.I-37	Labour charges for wrought and put-up including fixing in position for Teak wood Swing ventilators glazed including outer frame and shutter frame	1 Sqm	1621
1077	TBSC-T.I-38	Labour charges for wrought and put-up including fixing in position for Teak wood Weld mesh doors and windows including outer frame and shutter frame	1 Sqm	847
1078	TBSC-T.I-39	Labour charges for wrought and put-up including fixing in position for Teak wood G.I or .AC sheet door & windows including outer frame and shutter frame	1 Sqm	955
1079	TBSC-T.I-40	Labour charges for wrought and put-up including fixing in position for Other than teakwood Fully panelled doors external or internal including frame	1 Sqm	2120
1080	TBSC-T.I-41	Labour charges for wrought and put-up including fixing in position for Other than teakwood Glazed and panelled doors including fixing glass including frame	1 Sqm	3518
1081	TBSC-T.I-42	Labour charges for wrought and put-up including fixing in position for Other than teakwood Framed and planked doors including frame	1 Sqm	1758

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
1082	TBSC-T.I-43	Labour charges for wrought and put-up including fixing in position for Other than teakwood Lugged, braced and planked doors including frame	1 Sqm	1375
1083	TBSC-T.I-44	Labour charges for wrought and put-up including fixing in position for Other than teakwood Flush type door shutter including frame	1 Sqm	972
1084	TBSC-T.I-45	Labour charges for wrought and put-up including fixing in position for Other than teakwood Windows glazed including outer frame and shutter frame	1 Sqm	1458
1085	TBSC-T.I-46	Labour charges for wrought and put-up including fixing in position for Other than teakwood Windows panelled including outer frame and shutter frame	1 Sqm	2186
1086	TBSC-T.I-47	Labour charges for wrought and put-up including fixing in position for Other than teakwood Windows lugged, braced and planked including outer frame	1 Sqm	1496
1087	TBSC-T.I-48	Labour charges for wrought and put-up including fixing in position for Other than teakwood Windows framed and planked including outer frame and shutter frame	1 Sqm	1783
1088	TBSC-T.I-49	Labour charges for wrought and put-up including fixing in position for Other than teakwood Ventilators glazed, fixed with double frame with wire netting including frame	1 Sqm	1233
1089	TBSC-T.I-50	Labour charges for wrought and put-up including fixing in position for Other than teakwood Swing ventilators glazed including outer frame and shutter frame	1 Sqm	1552
1090	TBSC-T.I-51	Labour charges for wrought and put-up including fixing in position for Other than teakwood Weld mesh doors and windows including outer frame and shutter frame	1 Sqm	794
1091	TBSC-T.I-52	Labour charges for wrought and put-up including fixing in position for Other than teakwood G.I or .AC sheet door & windows including outer frame and shutter frame	1 Sqm	901
1092	TBSC-T.I-53	Dressing faces of granite stone (double line dressing)	1 Sqm	264
1093	TBSC-T.I-54	Dressing faces of other than granite stone(double line dressing)	1 Sqm	165
1094	TBSC-T.I-55	Labour charges for removing and refixing with complete servicing of the MS Windows	1 Sqm	562
U	SECTION	DISMANTLING		
1095	TBSC-U.I-01	Stone masonry in cement mortar	1 Cum	600
1096	TBSC-U.I-02	Terracing work in roofs or floors	1 Sqm	26
1097	TBSC-U.I-03	Flat stones in roof or floors including lifting	1Sqm	24
1098	TBSC-U.I-04	Pan tiled or Mangalore tiled roof without roof timbers.	1Sqm	21
1099	TBSC-U.I-05	Flat and pan tiles or Mangalore tiles over flat tiles without roof timbers	1Sqm	24
1100	TBSC-U.I-06	Wrought and framed timber in roofs or floors	1 Cum	312
1101	TBSC-U.I-07	Old lime mortar plaster	1Sqm	8

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
1102	TBSC-U.I-08	Old cement mortar plaster	1Sqm	9
1103	TBSC-U.I-09	Dry rough stone revetment for aprons and stacking within 40 M lead	1 Cum	97
1104	TBSC-U.I-10	Revetment for aprons and stacking grouted within 40 lead	1 Cum	74
1105	TBSC-U.I-11	Kadapa slabs or Shahabad stone slabs flooring on sand bed	1Sqm	12
1106	TBSC-U.I-12	Through scraping of old plastered surface	1Sqm	8
1107	TBSC-U.I-13	Washing of plastered surface with soap, soda and water (or with soda lime and water)	1Sqm	5
1108	TBSC-U.I-14	Clean removal of lime plaster from walls and raking out joints 20 mm deep or from terraced roof and raking out joints up to 50 mm deep	1Sqm	8
1109	TBSC-U.I-15	Clean removal of cement plaster from walls and raking out joints 20 mm deep or from terraced roof and raking out joints from 50 mm to 100 mm deep	1Sqm	9
V	SECTION	GYPSUM PLASTER		
1110	TBSC-V.I-01	Supply and applying 20 mm thick fine Gypsum plaster on internal RCC surfaces like Ceilings, Beams, Columns, walls duly preparing the surfaces clean and dry including cost of material, application charges to make even surface, labour charges, unloading, loading, scaffolding etc complete for finished item of work.	1Sqm	589
1111	TBSC-V.I-02	Supply and applying 12 mm thick fine Gypsum plaster on internal RCC surfaces like Ceilings, Beams, Columns, walls duly preparing the surfaces clean and dry including cost of material, application charges to make even surface, labour charges, unloading, loading, scaffolding etc complete for finished item of work.	1Sqm	354
W	SECTION	PANELS		
1112	TBSC-W.I-01	Providing and fixing in position, 200mm thick factory-made Expanded Polystyrene Core (EPS Core) wall panels consisting of EPS core sandwiched between two Engineered sheets of welded wire fabric mesh duly finished with shotcrete materials on outer faces. The fabric mesh shall be made of 3mm dia GI wire mesh with 50 mm pitch in both the directions and on both faces of the wall kept at 120-135 mm gap and connected by the zig zag GI wire of 3mm dia at alternate row by welding (at an angle ranging from 50-70 degree). The EPS core shall consist of 100 mm thick EPS of density not less than 20 kg/cum. Both the outer faces of the panel shall be finished by applying the layer of 50 mm thick cement mortar 1:3(1 cement; 3 coarse sand (not having more than 40% stone chips of size up to 6mm) with the help of shotcreting/guniting equipment etc at a pressure not less than 1 bar (100 kN/m ²) and both surfaces finished with trowel. Fixing operations of wall panels shall be completed in all respects as per drawing and specifications and under the overall direction of	1Sqm	3762

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		the Engineer-in-Charge		
1113	TBSC-W.I-02	Providing and fixing in position, 230 thick factory-made Expanded Polystyrene Core (EPS Core) roof/floor panels made of 3mm GI wire mesh with 50 mm pitch in both the directions and on both faces of the panel kept at 120-135 mm gap and connected by the zig zag GI wire of 3mm dia at alternate row by welding (at an angle ranging from 50-70 degree). The EPS core shall consist of 100 mm thick EPS of density not less than 20 kg/cum. The bottom side of the panel shall be finished by applying a layer of 60-65 mm thick cement mortar 1:3 (1 cement; 3 coarse sand (not having more than 40% stone chips of size up to 6mm) with the help of shortcreting equipment etc at a pressure not less than 1 bar (100 kN/m ²) and surfaces finished with trowel. The top face of the panel shall be provided and finished by applying 70-75mm thick layer of cement concrete 1:1.5:3 (1 Cement : 1.5 Coarse sand : 3 graded stone aggregate 20 mm nominal size)Fixing operations of roof/floor panels shall be completed in all respects as per drawing and specifications and under the overall direction of the Engineer-in-Charge	1Sqm	3982
1114	TBSC-W.I-03	Supply and Installation of 12 mm thick Flux standing seam polycarbonate panel system of DPI Daylighting or Equivalent, Supply and installation of translucent roof with DPI flux standing seam multicell polycarbonate panel system. The system with complete assembly of co extruded UV protected multicell panels incorporated into a complete system. Co extruded UV protected polycarbonate panel system of min 12 mm thick of 900 mm min width with angular daylighting concept. Panels shall have minimum six layers with truss bridge design for higher flexibility and strength. Panels with all fixing accessories to ensure best performance for wind uplift vibration, oil canning and visual appearance. Panels shall be manufactured with vertical standing seam at both sides of the panel. Panels shall be fixed on Purlin with snap on connectors with double tooth grip lock locking mechanism and will be secured on MS structure (will be paid separately) with 3 numbers of self-drilling screws and trapezoid SS fasteners holding the base of the standing seam offering best stability having a pull-out load of min 7000N tested as per ISO 6892-1998 and IS 1608-2005 as per design requirement. Panels must satisfy dart drop impact test as per IS 14443-97 shall show no sign of breakage on Polycarbonate sheets which have been exposed to UV for a min of 500 Hours as per ASTM G 155. Panels shall not have yellowness index as per ASTM D 1925 of 15 units when tested	1Sqm	3655

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		on a sample exposed to UV for 500 Hours as per ASTM G 155. U value shall not be more than 1.6 W/m ² K as per EN ISO 10077-2;2018. Panel shall be with additional end cap/ Aluminium U/F profile/Glazing Bar for ends as required. Panel shall be fixed over MS structural steel/MS purlin (paid separately) conforming to the detail technical specifications as per approved architectural drawings. Trained and factory authorized labour with supervision to complete the entire panel installation as per drawing & direction of the Engineer-in-Charge.		
1115	TBSC-W.I-04	Supply and Installation of 16 mm thick Flux standing seam polycarbonate panel system of DPI Daylighting or Equivalent Supply and installation of DPI Flux translucent roof with standing seam multicell polycarbonate panel system. The system with complete assembly of co extruded UV protected multicell panels incorporated into a complete system. Co extruded UV protected polycarbonate panel system of min 16 mm thick of 1200 mm min width with angular daylighting concept. Panels shall have minimum seven layers in a truss bridge design for higher flexibility and strength. Panels with opaque translucent clear combination as per required flux level and design requirements with all fixing accessories to ensure best performance for wind uplift vibration, oil canning and visual appearance. Panels shall be manufactured with vertical standing seam at both sides of the panel. Panels shall be fixed on Purlin with snap on connectors with double tooth grip lock locking mechanism and will be secured on MS structure (will be paid separately) with 3 numbers of self-drilling screws and trapezoid SS fasteners holding the base of the standing seam offering best stability having a pull-out load of min 7000N tested as per ISO 6892-1998 and IS 1608-2005 as per design requirement. Panels must satisfy dart drop impact test as per IS 14443-97 shall show no sign of breakage on Polycarbonate sheets which have been exposed to UV for a min of 500 Hours as per ASTM G 155. Panels shall not have yellowness index as per ASTM D 1925 of 15 units when tested on a sample exposed to UV for 500 Hours as per ASTM G 155. U value shall not be more than 1.9 W/m ² K as per EN ISO 10077-2;2018. Panel shall be with additional end cap/ Aluminium U/F profile/Glazing Bar for ends as required. Panel shall be fixed over MS structural steel/MS purlin (paid separately) conforming to the detail technical specifications as per approved architectural drawings. Trained and factory authorized labour with supervision to complete the entire panel installation as per drawing &	1Sqm	4644

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		direction of the Engineer-in-Charge.		
1116	TBSC-W.I-05	Supply and Installation of 18 mm thick Flux standing seam polycarbonate panel system of DPI Daylighting or Equivalent, Supply and installation of DPI Flux translucent roof with standing seam multicell polycarbonate panel system. The system with complete assembly of co extruded UV protected multicell panels incorporated into a complete system. Co extruded UV protected polycarbonate panel system of min 18 mm thick of 1200 mm min width with angular daylighting concept. Panels shall have minimum seven layers in a truss bridge design for higher flexibility and strength. Panels with opaque translucent clear combination as per required flux level and design requirements with all fixing accessories to ensure best performance for wind uplift vibration, oil canning and visual appearance. Panels shall have an additional IR Blocking features for enhance thermal comfort. Panels shall be manufactured with vertical standing seam at both sides of the panel. Panels shall be fixed on Purlin with snap on connectors with double tooth grip lock locking mechanism and will be secured on MS structure (will be paid separately) with a continuous aluminium I Beam holding the base of the standing seam along the length of the panel and fixed with purlin with self-drilling hex head screws offering best stability with a pull-out load of min 21000N tested as per ISO 6892-1998 and IS 1608-2005 as per design requirement. Panels must satisfy dart drop impact test as per IS 14443-97 shall show no sign of breakage on Polycarbonate sheets which have been exposed to UV for a min of 500 Hours as per ASTM G 155. U value shall not be more than 1.9 W/m ² K as per EN ISO 10077-2;2018. Panel shall be with additional end cap/ Aluminium U/F profile/Glazing Bar for ends as required. Panel shall be fixed over MS structural steel/MS purlin (paid separately) conforming to the detail technical specifications as per approved architectural drawings. Trained and factory authorized labour with supervision to complete the entire panel installation as per drawing & direction of the Engineer-in-Charge.	1Sqm	5041
X	SECTION	POST-TENSIONING WORKS		
1117	TBSC-X.I-01	Supply of Freyssinet type wedge action anchorage cone block, couplers, anchor heads and wedges of cast iron make shot blasting finish complete assembly of size 400 x 300 mm as per IS 1343 : 2012	1 No	2097
1118	TBSC-X.I-02	Supply of GI corrugated sheathing duct of 0.3mm thick of 90 mm size for installing the tendons for bonded post tensioning work as per IS 1343 : 2012	1 RM	56
1119	TBSC-X.I-03	Supply of HDPE grout hose with flanges for	1 RM	33

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		bonded post tensioning work as per IS 1343 : 2012		
1120	TBSC-X.I-04	Design and execution of post tensioning work, including supplying, laying of HT tendon strands, decoiling, the strands, cutting to the required lengths, laying of HT strands in sheathing (GI corrugated ducts 0.3mm thick) jointing with couplers and inserting the strands, profiling, fixing live end anchorages, making dead end anchorages, including flowering the strands, fixing tendon support bars, supervising the fixing of antibursting reinforcement, stressing the cables using hydraulic jack, end trimming, grouting the cables, with cement slurry, mixed with admixtures with required tools, plants, and machineries, and consumables etc., including all leads, lifts, coordination, with the post-tensioning agency, preparation of drawings, obtaining approval from the Engineer-in-Charge with supply of approved grade tendons but excluding the cost of concrete, reinforcement steel, shuttering, anchors, sheathing duct etc.,	1 MT	209632
1121	TBSC-X.I-05	Supply of uncoated Stress Relieved Strand for Prestressed Concrete or Post-Tensioning conforming to IS 6006 - 1983 and IS 14268 - 2017 of Class 1 & 2, as supply of approved grade tendons but excluding the cost of concrete, reinforcement steel, shuttering, anchors, sheathing duct etc. for - PT Strand 12.7 mm	1 MT	96369
1122	TBSC-X.I-06	Supply of uncoated Stress Relieved Strand for Prestressed Concrete or Post-Tensioning conforming to IS 6006 - 1983 and IS 14268 - 2017 of Class 1 & 2, as supply of approved grade tendons but excluding the cost of concrete, reinforcement steel, shuttering, anchors, sheathing duct etc. for - PT Strand 15.2 mm	1 MT	98442
1	All the items to be used on the works are of first quality & ISI and as approved by the Engineer-In-charge of the work.			
2	Supply Rates for all the materials are basic rates based on market rates/quoted rates/ derived rates, excluding Taxes.			
3	The applicable GST (works contract) shall be added at applicable rate in Part B of the estimates.			
4	SSR Rates for Building items are purely for the guidance of the officers in preparation of estimates vide para.113 of APPWD code. Authority who prepares the estimate is however responsible for proper rates as envisaged in para.45 of APPWD code.			
	LEGEND	"TBSC" -A.I-01		
		"TBSC" -R.I-22		
		"TBSC" -S.III-14		
		TBS - Denotes Telangana Buildings SoR		
		A.I/ R.IV - Denotes the Section & Sub-section		
		01/22 - Denotes the serial number of the item		

SCAFFOLDING CHARGES

Providing rigid steel cup lock scaffolding system using steel pipes, adjustable Jack screw props, RHS spans, couplers, bracings and horizontal connecting members, supporting brackets, RHS span beams as per the approved scaffolding designs & plan and other accessories as per the IS Norms and stability calculations including hire charges for cup lock scaffolding pipes, RHS spans, runners, wooden members and cost and conveyance of all other consumable accessories, taxes etc complete for finished item of work

A. Hire Charges for Centring Deck Sheets - 9 Ply - 19 mm thick Plywood conforming to IS:303 BWR Grade

B. Hire Charges for Centring with MS Steel Plate - form work

C. Hire Charges for Centring with Aluminium anodized sheets and sections conforming to IS: 11857 - 1986

Sl	NAME OF THE STRUCTURAL MEMBER	Material Hire charges	Labour charges			Centring Charges for 2023-24	Unit of Measurement
1	2	3	4			5	6
A. HIRE CHARGES FOR CENTERING & SCAFFOLDING - CUPLOCK + MARINE GRADE PLYWOOD							
A	FOOTINGS	Rs.	550.00	Rs.	799.00	Rs.	1349.00 per 1 cum
B	BED BLOCKS, BANDS	Rs.	121.00	Rs.	412.00	Rs.	533.00 per 1 cum
C	PEDESTALS	Rs.	624.00	Rs.	1271.00	Rs.	1895.00 per 1 cum
D	PLINTH BEAMS	Rs.	2649.00	Rs.	1926.00	Rs.	4575.00 per 1 cum
HIRE CHARGES FOR CENTERING & SCAFFOLDING - Unsupported Height up to 3.66 M - MS Cup lock System + Marine Grade Plywood shuttering							
E	LINTELS	Rs.	2249.00	Rs.	2045.00	Rs.	4294.00 per 1 cum
F	CHAJJAS - SUNSHADES	Rs.	444.00	Rs.	314.00	Rs.	758.00 per 1 sqm
G	COLUMNS	Rs.	677.00	Rs.	2871.00	Rs.	3548.00 per 1 cum
H	BEAMS	Rs.	3973.00	Rs.	2408.00	Rs.	6381.00 per 1 cum
I	SLABS - Up to 150 mm thick	Rs.	450.00	Rs.	273.00	Rs.	723.00 per 1 sqm
J	SLABS - above 150 mm - Up to 300 mm thick	Rs.	463.00	Rs.	281.00	Rs.	744.00 per 1 sqm
K	SLABS - above 300 mm thick	Rs.	484.00	Rs.	294.00	Rs.	778.00 per 1 sqm
L	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	Rs.	1636.00	Rs.	991.00	Rs.	2627.00 per 1 sqm
M	PERGOLA SLABS (Only Rib Beams)	Rs.	1147.00	Rs.	695.00	Rs.	1842.00 per 1 sqm
N	ARCH BEAMS - up to 1.5 M Span	Rs.	4517.00	Rs.	2737.00	Rs.	7254.00 per 1 cum
O	ARCH BEAMS - above 1.5 M Span	Rs.	4581.00	Rs.	2776.00	Rs.	7357.00 per 1 cum
P	DOME SLABS	Rs.	7304.00	Rs.	4426.00	Rs.	11730.00 per 1 cum
Q	HELICAL STAIRCASES	Rs.	557.00	Rs.	337.00	Rs.	894.00 per 1 sqm
R	SHEAR WALLS, RCC WALLS, WATER TANK WALLS	Rs.	926.00	Rs.	642.00	Rs.	1568.00 per 1 sqm
B. HIRE CHARGES FOR CENTERING & SCAFFOLDING - CUPLOCK + MS PLATES							
A	FOOTINGS	Rs.	533.00	Rs.	799.00	Rs.	1332.00 per 1 cum
B	BED BLOCKS, BANDS	Rs.	118.00	Rs.	412.00	Rs.	530.00 per 1 cum
C	PEDESTALS	Rs.	605.00	Rs.	1271.00	Rs.	1876.00 per 1 cum
D	PLINTH BEAMS	Rs.	2568.00	Rs.	1926.00	Rs.	4494.00 per 1 cum
HIRE CHARGES FOR CENTERING & SCAFFOLDING - Unsupported Height up to 3.66 M - MS Cup lock System + MS Plate shuttering							
E	LINTELS	Rs.	2181.00	Rs.	2045.00	Rs.	4226.00 per 1 cum
F	CHAJJAS - SUNSHADES	Rs.	431.00	Rs.	314.00	Rs.	745.00 per 1 sqm

G	COLUMNS	Rs.	656.00	Rs.	2871.00	Rs.	3527.00	per 1 cum
H	BEAMS	Rs.	3852.00	Rs.	2408.00	Rs.	6260.00	per 1 cum
I	SLABS - Up to 150 mm thick	Rs.	437.00	Rs.	273.00	Rs.	710.00	per 1 sqm
J	SLABS - above 150 mm - Up to 300 mm thick	Rs.	449.00	Rs.	281.00	Rs.	730.00	per 1 sqm
K	SLABS - above 300 mm thick	Rs.	470.00	Rs.	294.00	Rs.	764.00	per 1 sqm
L	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	Rs.	1586.00	Rs.	991.00	Rs.	2577.00	per 1 sqm
M	PERGOLA SLABS (Only Rib Beams)	Rs.	1112.00	Rs.	695.00	Rs.	1807.00	per 1 sqm
N	ARCH BEAMS - up to 1.5 M Span	Rs.	4380.00	Rs.	2737.00	Rs.	7117.00	per 1 cum
O	ARCH BEAMS - above 1.5 M Span	Rs.	4441.00	Rs.	2776.00	Rs.	7217.00	per 1 cum
P	DOME SLABS	Rs.	7082.00	Rs.	4426.00	Rs.	11508.00	per 1 cum
Q	HELICAL STAIRCASES	Rs.	540.00	Rs.	337.00	Rs.	877.00	per 1 sqm
R	SHEAR WALLS, RCC WALLS, WATER TANK WALLS	Rs.	898.00	Rs.	642.00	Rs.	1540.00	per 1 sqm
C. HIRE CHARGES FOR CENTERING & SCAFFOLDING - CUPLOCK + ALUMINIUM PLATES								
A	FOOTINGS	Rs.	750.00	Rs.	799.00	Rs.	1549.00	per 1 cum
B	BED BLOCKS, BANDS	Rs.	166.00	Rs.	412.00	Rs.	578.00	per 1 cum
C	PEDESTALS	Rs.	851.00	Rs.	1271.00	Rs.	2122.00	per 1 cum
D	PLINTH BEAMS	Rs.	3613.00	Rs.	1926.00	Rs.	5539.00	per 1 cum
HIRE CHARGES FOR CENTERING & SCAFFOLDING - Unsupported Height up to 3.66 M - MS Cup lock System + Aluminium Plate shuttering								
E	LINTELS	Rs.	3068.00	Rs.	2045.00	Rs.	5113.00	per 1 cum
F	CHAJJAS - SUNSHADES	Rs.	606.00	Rs.	314.00	Rs.	920.00	per 1 sqm
G	COLUMNS	Rs.	923.00	Rs.	2871.00	Rs.	3794.00	per 1 cum
H	BEAMS	Rs.	5419.00	Rs.	2408.00	Rs.	7827.00	per 1 cum
I	SLABS - Up to 150 mm thick	Rs.	614.00	Rs.	273.00	Rs.	887.00	per 1 sqm
J	SLABS - above 150 mm - Up to 300 mm thick	Rs.	632.00	Rs.	281.00	Rs.	913.00	per 1 sqm
K	SLABS - above 300 mm thick	Rs.	661.00	Rs.	294.00	Rs.	955.00	per 1 sqm
L	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	Rs.	2231.00	Rs.	991.00	Rs.	3222.00	per 1 sqm
M	PERGOLA SLABS (Only Rib Beams)	Rs.	1565.00	Rs.	695.00	Rs.	2260.00	per 1 sqm
N	ARCH BEAMS - up to 1.5 M Span	Rs.	6161.00	Rs.	2737.00	Rs.	8898.00	per 1 cum
O	ARCH BEAMS - above 1.5 M Span	Rs.	6248.00	Rs.	2776.00	Rs.	9024.00	per 1 cum
P	DOME SLABS	Rs.	9963.00	Rs.	4426.00	Rs.	14389.00	per 1 cum
Q	HELICAL STAIRCASES	Rs.	759.00	Rs.	337.00	Rs.	1096.00	per 1 sqm
R	SHEAR WALLS, RCC WALLS, WATER TANK WALLS	Rs.	1263.00	Rs.	642.00	Rs.	1905.00	per 1 sqm
Note: - Centering & scaffolding charges for steel scaffolding with pipes, jack props, centring for unsupported heights of every 610 mm height above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item								

Sl	NAME OF THE STRUCTURAL MEMBER	Material Hire charges		Labour charges		Centring Charges for 2023-24		Unit of Measurement
1	2	3		4		5		6
HIRE CHARGES FOR ACCESS SCAFFOLDING - up to 3.66 M using MS Jack Prop Cup lock Pipe Scaffolds for BRICK MASONRY/ STONE MASONRY - 1 sqm (Wall Area)								
A	1st - Floor	Rs.	13.60	Rs.	100.66	Rs.	114.26	per 1 sqm
B	2nd - Floor	Rs.	13.60	Rs.	144.20	Rs.	157.80	per 1 sqm
C	3rd - Floor	Rs.	13.60	Rs.	187.73	Rs.	201.33	per 1 sqm
D	4th - Floor	Rs.	13.60	Rs.	231.26	Rs.	244.86	per 1 sqm
E	5th - Floor	Rs.	13.60	Rs.	274.80	Rs.	288.40	per 1 sqm
F	6th - Floor	Rs.	13.60	Rs.	318.33	Rs.	331.93	per 1 sqm
G	7th - Floor	Rs.	13.60	Rs.	361.87	Rs.	375.46	per 1 sqm
H	8th - Floor	Rs.	13.60	Rs.	405.40	Rs.	419.00	per 1 sqm
I	9th - Floor	Rs.	13.60	Rs.	448.93	Rs.	462.53	per 1 sqm
J	10th - Floor	Rs.	13.60	Rs.	492.47	Rs.	506.06	per 1 sqm
K	11th - Floor	Rs.	13.60	Rs.	536.00	Rs.	549.60	per 1 sqm
L	12th - Floor	Rs.	13.60	Rs.	579.53	Rs.	593.13	per 1 sqm
M	13th - Floor	Rs.	13.60	Rs.	623.07	Rs.	636.66	per 1 sqm
N	14th - Floor	Rs.	13.60	Rs.	666.60	Rs.	680.20	per 1 sqm
O	15th - Floor	Rs.	13.60	Rs.	710.13	Rs.	723.73	per 1 sqm
HIRE CHARGES FOR ACCESS SCAFFOLDING - up to 3.66 M using MS Jack Prop Cup lock Pipe Scaffolds., for PLASTERING/ PAINTING/ TEXTURE to WALLS - 1 sqm								
A	1st - Floor	Rs.	1.36	Rs.	10.07	Rs.	11.43	per 1 sqm
B	2nd - Floor	Rs.	1.36	Rs.	14.42	Rs.	15.78	per 1 sqm
C	3rd - Floor	Rs.	1.36	Rs.	18.77	Rs.	20.13	per 1 sqm
D	4th - Floor	Rs.	1.36	Rs.	23.13	Rs.	24.49	per 1 sqm
E	5th - Floor	Rs.	1.36	Rs.	27.48	Rs.	28.84	per 1 sqm
F	6th - Floor	Rs.	1.36	Rs.	31.83	Rs.	33.19	per 1 sqm
G	7th - Floor	Rs.	1.36	Rs.	36.19	Rs.	37.55	per 1 sqm
H	8th - Floor	Rs.	1.36	Rs.	40.54	Rs.	41.90	per 1 sqm
I	9th - Floor	Rs.	1.36	Rs.	44.89	Rs.	46.25	per 1 sqm
J	10th - Floor	Rs.	1.36	Rs.	49.25	Rs.	50.61	per 1 sqm
K	11th - Floor	Rs.	1.36	Rs.	53.60	Rs.	54.96	per 1 sqm
L	12th - Floor	Rs.	1.36	Rs.	57.95	Rs.	59.31	per 1 sqm
M	13th - Floor	Rs.	1.36	Rs.	62.31	Rs.	63.67	per 1 sqm
N	14th - Floor	Rs.	1.36	Rs.	66.66	Rs.	68.02	per 1 sqm
O	15th - Floor	Rs.	1.36	Rs.	71.01	Rs.	72.37	per 1 sqm
HIRE CHARGES FOR STAGE SCAFFOLDING - up to 3.66 M using MS Jack Prop Cup lock Scaffolds, Staging Boards, for CEILING PLASTERING - 1 sqm								
A	1st - Floor	Rs.	4.24	Rs.	21.16	Rs.	25.40	per 1 sqm
B	2nd - Floor	Rs.	4.24	Rs.	29.62	Rs.	33.86	per 1 sqm
C	3rd - Floor	Rs.	4.24	Rs.	38.08	Rs.	42.32	per 1 sqm
D	4th - Floor	Rs.	4.24	Rs.	46.54	Rs.	50.78	per 1 sqm
E	5th - Floor	Rs.	4.24	Rs.	55.00	Rs.	59.24	per 1 sqm
F	6th - Floor	Rs.	4.24	Rs.	63.46	Rs.	67.70	per 1 sqm
G	7th - Floor	Rs.	4.24	Rs.	71.92	Rs.	76.16	per 1 sqm
H	8th - Floor	Rs.	4.24	Rs.	80.38	Rs.	84.62	per 1 sqm
I	9th - Floor	Rs.	4.24	Rs.	88.84	Rs.	93.08	per 1 sqm
J	10th - Floor	Rs.	4.24	Rs.	97.30	Rs.	101.54	per 1 sqm
K	11th - Floor	Rs.	4.24	Rs.	105.76	Rs.	109.99	per 1 sqm
L	12th - Floor	Rs.	4.24	Rs.	114.22	Rs.	118.45	per 1 sqm
M	13th - Floor	Rs.	4.24	Rs.	122.67	Rs.	126.91	per 1 sqm
N	14th - Floor	Rs.	4.24	Rs.	131.13	Rs.	135.37	per 1 sqm
O	15th - Floor	Rs.	4.24	Rs.	139.59	Rs.	143.83	per 1 sqm
Note: - Centering & scaffolding charges for steel scaffolding with pipes, jack props, centring for unsupported heights of every 610 mm height above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item								

A. CENTERING & SCAFFOLDING CHARGES- FLOOR WISE RATES for CUPLOCK SCAFFOLD SYSTEM USING PLYWOOD SHUTTER for unsupported height 3.66 M

FLOOR		LINTELS	CHAJJAS - SUNSHADES	COLUMNS	BEAMS	SLABS - Up to 150 mm thick	SLABS - above 150 mm - Up to 300 mm thick	SLABS - above 300 mm thick	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	PERGOLA SLABS (Only Rib Beams)	ARCH BEAMS - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOME SLABS	HELICAL STAIR CASES	SHEAR WALLS, RCC WALLS, WATER TANK WALLS
Material Hire for any Floor	H	2249.00	444.00	677.00	3973.00	450.00	463.00	484.00	1636.00	1147.00	4517.00	4581.00	7304.00	557.00	926.00
Labour Charges for 1st Floor	L	2045.00	314.00	2871.00	2408.00	273.00	281.00	294.00	991.00	695.00	2737.00	2776.00	4426.00	337.00	642.00
Total Hire Charges (H+L)	T	4294.00	758.00	3548.00	6381.00	723.00	744.00	778.00	2627.00	1842.00	7254.00	7357.00	11730.00	894.00	1568.00
Floor Charges															
1st - Floor	L	2045.00	314.00	2871.00	2408.00	273.00	281.00	294.00	991.00	695.00	2737.00	2776.00	4426.00	337.00	642.00
2nd - Floor	L	2250.00	345.00	3158.00	2649.00	300.00	309.00	323.00	1090.00	765.00	3011.00	3054.00	4869.00	371.00	706.00
3rd - Floor	L	2454.00	377.00	3445.00	2890.00	328.00	337.00	353.00	1189.00	834.00	3284.00	3331.00	5311.00	404.00	770.00
4th - Floor	L	2659.00	408.00	3732.00	3130.00	355.00	365.00	382.00	1288.00	904.00	3558.00	3609.00	5754.00	438.00	835.00
5th - Floor	L	2863.00	440.00	4019.00	3371.00	382.00	393.00	412.00	1387.00	973.00	3832.00	3886.00	6196.00	472.00	899.00
6th - Floor	L	3068.00	471.00	4307.00	3612.00	410.00	422.00	441.00	1487.00	1043.00	4106.00	4164.00	6639.00	506.00	963.00
7th - Floor	L	3272.00	502.00	4594.00	3853.00	437.00	450.00	470.00	1586.00	1112.00	4379.00	4442.00	7082.00	539.00	1027.00
8th - Floor	L	3477.00	534.00	4881.00	4094.00	464.00	478.00	500.00	1685.00	1182.00	4653.00	4719.00	7524.00	573.00	1091.00
9th - Floor	L	3681.00	565.00	5168.00	4334.00	491.00	506.00	529.00	1784.00	1251.00	4927.00	4997.00	7967.00	607.00	1156.00
10th - Floor	L	3886.00	597.00	5455.00	4575.00	519.00	534.00	559.00	1883.00	1321.00	5200.00	5274.00	8409.00	640.00	1220.00
11th - Floor	L	4090.00	628.00	5742.00	4816.00	546.00	562.00	588.00	1982.00	1390.00	5474.00	5552.00	8852.00	674.00	1284.00
12th - Floor	L	4295.00	659.00	6029.00	5057.00	573.00	590.00	617.00	2081.00	1460.00	5748.00	5830.00	9295.00	708.00	1348.00
13th - Floor	L	4499.00	691.00	6316.00	5298.00	601.00	618.00	647.00	2180.00	1529.00	6021.00	6107.00	9737.00	741.00	1412.00
14th - Floor	L	4704.00	722.00	6603.00	5538.00	628.00	646.00	676.00	2279.00	1599.00	6295.00	6385.00	10180.00	775.00	1477.00
15th - Floor	L	4908.00	754.00	6890.00	5779.00	655.00	674.00	706.00	2378.00	1668.00	6569.00	6662.00	10622.00	809.00	1541.00

Note: Centering & scaffolding charges for unsupported heights of every 610 mm height or part thereof over and above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item

B. CENTERING & SCAFFOLDING CHARGES- FLOOR WISE RATES for CUPLOCK SCAFFOLD SYSTEM USING MS STEEL PLATE SHUTTER for unsupported height 3.66 M

FLOOR		LINTELS	CHAJJAS - SUNSHADES	COLUMNNS	BEAMS	SLABS - Up to 150 mm thick	SLABS - above 150 mm - Up to 300 mm thick	SLABS - above 300 mm thick	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	PERGOLA SLABS (Only Rib Beams)	ARCH BEAMS - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOMES SLABS	HELICAL STAIR- CASES	SHEAR WALLS, RCC WALLS, WATER TANK WALLS
Material Hire for any Floor	H	2181.00	431.00	656.00	3852.00	437.00	449.00	470.00	1586.00	1112.00	4380.00	4441.00	7082.00	540.00	898.00
Labour Charges for 1st Floor	L	2045.00	314.00	2871.00	2408.00	273.00	281.00	294.00	991.00	695.00	2737.00	2776.00	4426.00	337.00	642.00
Total Hire Charges (H+L)	T	4226.00	745.00	3527.00	6260.00	710.00	730.00	764.00	2577.00	1807.00	7117.00	7217.00	11508.00	877.00	1540.00
Floor Charges															
1st - Floor	L	2045.00	314.00	2871.00	2408.00	273.00	281.00	294.00	991.00	695.00	2737.00	2776.00	4426.00	337.00	642.00
2nd - Floor	L	2250.00	345.00	3158.00	2649.00	300.00	309.00	323.00	1090.00	765.00	3011.00	3054.00	4869.00	371.00	706.00
3rd - Floor	L	2454.00	377.00	3445.00	2890.00	328.00	337.00	353.00	1189.00	834.00	3284.00	3331.00	5311.00	404.00	770.00
4th - Floor	L	2659.00	408.00	3732.00	3130.00	355.00	365.00	382.00	1288.00	904.00	3558.00	3609.00	5754.00	438.00	835.00
5th - Floor	L	2863.00	440.00	4019.00	3371.00	382.00	393.00	412.00	1387.00	973.00	3832.00	3886.00	6196.00	472.00	899.00
6th - Floor	L	3068.00	471.00	4307.00	3612.00	410.00	422.00	441.00	1487.00	1043.00	4106.00	4164.00	6639.00	506.00	963.00
7th - Floor	L	3272.00	502.00	4594.00	3853.00	437.00	450.00	470.00	1586.00	1112.00	4379.00	4442.00	7082.00	539.00	1027.00
8th - Floor	L	3477.00	534.00	4881.00	4094.00	464.00	478.00	500.00	1685.00	1182.00	4653.00	4719.00	7524.00	573.00	1091.00
9th - Floor	L	3681.00	565.00	5168.00	4334.00	491.00	506.00	529.00	1784.00	1251.00	4927.00	4997.00	7967.00	607.00	1156.00
10th - Floor	L	3886.00	597.00	5455.00	4575.00	519.00	534.00	559.00	1883.00	1321.00	5200.00	5274.00	8409.00	640.00	1220.00
11th - Floor	L	4090.00	628.00	5742.00	4816.00	546.00	562.00	588.00	1982.00	1390.00	5474.00	5552.00	8852.00	674.00	1284.00
12th - Floor	L	4295.00	659.00	6029.00	5057.00	573.00	590.00	617.00	2081.00	1460.00	5748.00	5830.00	9295.00	708.00	1348.00
13th - Floor	L	4499.00	691.00	6316.00	5298.00	601.00	618.00	647.00	2180.00	1529.00	6021.00	6107.00	9737.00	741.00	1412.00
14th - Floor	L	4704.00	722.00	6603.00	5538.00	628.00	646.00	676.00	2279.00	1599.00	6295.00	6385.00	10180.00	775.00	1477.00
15th - Floor	L	4908.00	754.00	6890.00	5779.00	655.00	674.00	706.00	2378.00	1668.00	6569.00	6662.00	10622.00	809.00	1541.00

Note: Centering & scaffolding charges for unsupported heights of every 610 mm height or part thereof over and above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item

C. CENTERING & SCAFFOLDING CHARGES- FLOOR WISE RATES for CUPLOCK SCAFFOLD SYSTEM USING ALUMINIUM PLATE SHUTTER for unsupported height 3.66 M

FLOOR		LINTELS	CHAJJAS - SUN- SHADES	COLUMNS	BEAMS	SLABS - Up to 150 mm thick	SLABS - above 150 mm - Up to 300 mm thick	SLABS - above 300 mm thick	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	PERGOLA SLABS (Only Rib Beams)	ARCH BEAMS - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOME SLABS	HELICAL STAIR- CASES	SHEAR WALLS, RCC WALLS, WATER TANK WALLS
Material Hire for any Floor	H	3068.00	606.00	923.00	5419.00	614.00	632.00	661.00	2231.00	1565.00	6161.00	6248.00	9963.00	759.00	1263.00
Labour Charges for 1st Floor	L	2045.00	314.00	2871.00	2408.00	273.00	281.00	294.00	991.00	695.00	2737.00	2776.00	4426.00	337.00	642.00
Total Hire Charges(H+L)	T	5113.00	920.00	3794.00	7827.00	887.00	913.00	955.00	3222.00	2260.00	8898.00	9024.00	14389.00	1096.00	1905.00
Floor Charges															
1st - Floor	L	2045.00	314.00	2871.00	2408.00	273.00	281.00	294.00	991.00	695.00	2737.00	2776.00	4426.00	337.00	642.00
2nd - Floor	L	2250.00	345.00	3158.00	2649.00	300.00	309.00	323.00	1090.00	765.00	3011.00	3054.00	4869.00	371.00	706.00
3rd - Floor	L	2454.00	377.00	3445.00	2890.00	328.00	337.00	353.00	1189.00	834.00	3284.00	3331.00	5311.00	404.00	770.00
4th - Floor	L	2659.00	408.00	3732.00	3130.00	355.00	365.00	382.00	1288.00	904.00	3558.00	3609.00	5754.00	438.00	835.00
5th - Floor	L	2863.00	440.00	4019.00	3371.00	382.00	393.00	412.00	1387.00	973.00	3832.00	3886.00	6196.00	472.00	899.00
6th - Floor	L	3068.00	471.00	4307.00	3612.00	410.00	422.00	441.00	1487.00	1043.00	4106.00	4164.00	6639.00	506.00	963.00
7th - Floor	L	3272.00	502.00	4594.00	3853.00	437.00	450.00	470.00	1586.00	1112.00	4379.00	4442.00	7082.00	539.00	1027.00
8th - Floor	L	3477.00	534.00	4881.00	4094.00	464.00	478.00	500.00	1685.00	1182.00	4653.00	4719.00	7524.00	573.00	1091.00
9th - Floor	L	3681.00	565.00	5168.00	4334.00	491.00	506.00	529.00	1784.00	1251.00	4927.00	4997.00	7967.00	607.00	1156.00
10th - Floor	L	3886.00	597.00	5455.00	4575.00	519.00	534.00	559.00	1883.00	1321.00	5200.00	5274.00	8409.00	640.00	1220.00
11th - Floor	L	4090.00	628.00	5742.00	4816.00	546.00	562.00	588.00	1982.00	1390.00	5474.00	5552.00	8852.00	674.00	1284.00
12th - Floor	L	4295.00	659.00	6029.00	5057.00	573.00	590.00	617.00	2081.00	1460.00	5748.00	5830.00	9295.00	708.00	1348.00
13th - Floor	L	4499.00	691.00	6316.00	5298.00	601.00	618.00	647.00	2180.00	1529.00	6021.00	6107.00	9737.00	741.00	1412.00
14th - Floor	L	4704.00	722.00	6603.00	5538.00	628.00	646.00	676.00	2279.00	1599.00	6295.00	6385.00	10180.00	775.00	1477.00
15th - Floor	L	4908.00	754.00	6890.00	5779.00	655.00	674.00	706.00	2378.00	1668.00	6569.00	6662.00	10622.00	809.00	1541.00

Note: Centering & scaffolding charges for unsupported heights of every 610 mm height or part thereof over and above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item

Sl	NAME OF THE STRUCTURAL MEMBER	Material Hire charges		Labour charges		Centring Charges for 2021-22		Unit of Measurement
1	2	3		4		5		6
D. HIRE CHARGES FOR CENTERING & SCAFFOLDING								
A	FOOTINGS	Rs.	339.00	Rs.	799.00	Rs.	1138.00	per 1 cum
B	BED BLOCKS, BANDS	Rs.	75.00	Rs.	412.00	Rs.	487.00	per 1 cum
C	PEDESTALS	Rs.	385.00	Rs.	1271.00	Rs.	1656.00	per 1 cum
D	PLINTH BEAMS	Rs.	1632.00	Rs.	1926.00	Rs.	3558.00	per 1 cum
HIRE CHARGES FOR CENTERING & SCAFFOLDING - Unsupported Height up to 3.66 M Steel scaffolding pipes, jack Props, Wallers, Foot plates, brackets, steel Centering Plates, etc.,								
E	LINTELS	Rs.	1386.00	Rs.	2045.00	Rs.	3431.00	per 1 cum
F	CHAJJAS - SUNSHADES	Rs.	274.00	Rs.	314.00	Rs.	588.00	per 1 sqm
G	COLUMNS	Rs.	417.00	Rs.	2871.00	Rs.	3288.00	per 1 cum
H	BEAMS	Rs.	2449.00	Rs.	2408.00	Rs.	4857.00	per 1 cum
I	SLABS - Up to 150 mm thick	Rs.	278.00	Rs.	273.00	Rs.	551.00	per 1 sqm
J	SLABS - above 150 mm - Up to 300 mm thick	Rs.	285.00	Rs.	281.00	Rs.	566.00	per 1 sqm
K	SLABS - above 300 mm thick	Rs.	299.00	Rs.	294.00	Rs.	593.00	per 1 sqm
L	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	Rs.	1008.00	Rs.	991.00	Rs.	1999.00	per 1 sqm
M	PERGOLA SLABS (Only Rib Beams)	Rs.	707.00	Rs.	695.00	Rs.	1402.00	per 1 sqm
N	ARCH BEAMS - up to 1.5 M Span	Rs.	2784.00	Rs.	2737.00	Rs.	5521.00	per 1 cum
O	ARCH BEAMS - above 1.5 M Span	Rs.	2823.00	Rs.	2776.00	Rs.	5599.00	per 1 cum
P	DOME SLABS	Rs.	4502.00	Rs.	4426.00	Rs.	8928.00	per 1 cum
Q	HELICAL STAIRCASES	Rs.	343.00	Rs.	337.00	Rs.	680.00	per 1 sqm
R	SHEAR WALLS, RCC WALLS, WATER TANK WALLS	Rs.	571.00	Rs.	642.00	Rs.	1213.00	per 1 sqm
E. HIRE CHARGES FOR CENTERING & SCAFFOLDING - Unsupported Height up to 3.66 M Casuarinas Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates etc.,								
E	LINTELS	Rs.	920.00	Rs.	1558.00	Rs.	2478.00	per 1 cum
F	CHAJJAS - SUNSHADES	Rs.	182.00	Rs.	239.00	Rs.	421.00	per 1 sqm
G	COLUMNS	Rs.	277.00	Rs.	2188.00	Rs.	2465.00	per 1 cum
H	BEAMS	Rs.	1625.00	Rs.	1835.00	Rs.	3460.00	per 1 cum
I	SLABS - Up to 150 mm thick	Rs.	184.00	Rs.	208.00	Rs.	392.00	per 1 sqm
J	SLABS - above 150	Rs.	189.00	Rs.	214.00	Rs.	403.00	per 1 sqm

	mm - Up to 300 mm thick								
K	SLABS - above 300 mm thick	Rs.	198.00	Rs.	224.00	Rs.	422.00	per 1 sqm	
L	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	Rs.	669.00	Rs.	756.00	Rs.	1425.00	per 1 sqm	
M	PERGOLA SLABS (Only Rib Beams)	Rs.	469.00	Rs.	530.00	Rs.	999.00	per 1 sqm	
N	ARCH BEAMS - up to 1.5 M Span	Rs.	1848.00	Rs.	2086.00	Rs.	3934.00	per 1 cum	
O	ARCH BEAMS - above 1.5 M Span	Rs.	1874.00	Rs.	2116.00	Rs.	3990.00	per 1 cum	
P	DOME SLABS	Rs.	2988.00	Rs.	3374.00	Rs.	6362.00	per 1 cum	
Q	HELICAL STAIRCASES	Rs.	228.00	Rs.	257.00	Rs.	485.00	per 1 sqm	
R	SHEAR WALLS, RCC WALLS, WATER TANK WALLS	DELETED							
Sl	NAME OF THE STRUCTURAL MEMBER		Material Hire charges		Labour charges		Centring Charges for 2021-22	Unit of Measurement	
1	2		3		4		5	6	
HIRE CHARGES FOR ACCESS SCAFFOLDING - up to 3.66 M using Casuarinas Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates etc., for BRICK MASONRY/ STONE MASONRY - 1 sqm (Wall Area)									
A	1st - Floor		Rs.	12.17	Rs.	98.93	Rs.	111.10	per 1 sqm
B	2nd - Floor		Rs.	12.17	Rs.	142.32	Rs.	154.48	per 1 sqm
C	3rd - Floor		Rs.	12.17	Rs.	185.70	Rs.	197.87	per 1 sqm
D	4th - Floor		Rs.	12.17	Rs.	229.08	Rs.	241.25	per 1 sqm
E	5th - Floor		Rs.	12.17	Rs.	272.47	Rs.	284.63	per 1 sqm
F	6th - Floor		Rs.	12.17	Rs.	315.85	Rs.	328.02	per 1 sqm
G	7th - Floor		Rs.	12.17	Rs.	359.23	Rs.	371.40	per 1 sqm
H	8th - Floor		Rs.	12.17	Rs.	402.62	Rs.	414.78	per 1 sqm
I	9th - Floor		Rs.	12.17	Rs.	446.00	Rs.	458.17	per 1 sqm
J	10th - Floor		Rs.	12.17	Rs.	489.38	Rs.	501.55	per 1 sqm
K	11th - Floor		Rs.	12.17	Rs.	532.77	Rs.	544.93	per 1 sqm
L	12th - Floor		Rs.	12.17	Rs.	576.15	Rs.	588.32	per 1 sqm
M	13th - Floor		Rs.	12.17	Rs.	619.53	Rs.	631.70	per 1 sqm
N	14th - Floor		Rs.	12.17	Rs.	662.92	Rs.	675.08	per 1 sqm
O	15th - Floor		Rs.	12.17	Rs.	706.30	Rs.	718.47	per 1 sqm
HIRE CHARGES FOR ACCESS SCAFFOLDING - up to 3.66 M using Casuarinas Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates etc., for PLASTERING to WALLS - 1 sqm									
A	1st - Floor		Rs.	1.22	Rs.	9.89	Rs.	11.11	per 1 sqm
B	2nd - Floor		Rs.	1.22	Rs.	14.23	Rs.	15.45	per 1 sqm
C	3rd - Floor		Rs.	1.22	Rs.	18.57	Rs.	19.79	per 1 sqm
D	4th - Floor		Rs.	1.22	Rs.	22.91	Rs.	24.12	per 1 sqm
E	5th - Floor		Rs.	1.22	Rs.	27.25	Rs.	28.46	per 1 sqm
F	6th - Floor		Rs.	1.22	Rs.	31.58	Rs.	32.80	per 1 sqm
G	7th - Floor		Rs.	1.22	Rs.	35.92	Rs.	37.14	per 1 sqm
H	8th - Floor		Rs.	1.22	Rs.	40.26	Rs.	41.48	per 1 sqm
I	9th - Floor		Rs.	1.22	Rs.	44.60	Rs.	45.82	per 1 sqm

J	10th - Floor	Rs.	1.22	Rs.	48.94	Rs.	50.15	per 1 sqm
K	11th - Floor	Rs.	1.22	Rs.	53.28	Rs.	54.49	per 1 sqm
L	12th - Floor	Rs.	1.22	Rs.	57.61	Rs.	58.83	per 1 sqm
M	13th - Floor	Rs.	1.22	Rs.	61.95	Rs.	63.17	per 1 sqm
N	14th - Floor	Rs.	1.22	Rs.	66.29	Rs.	67.51	per 1 sqm
O	15th - Floor	Rs.	1.22	Rs.	70.63	Rs.	71.85	per 1 sqm
HIRE CHARGES FOR STAGE SCAFFOLDING - up to 3.66 M using Casuarinas Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates etc., for CEILING PLASTERING - 1 sqm								
A	1st - Floor	Rs.	2.89	Rs.	19.87	Rs.	22.76	per 1 sqm
B	2nd - Floor	Rs.	2.89	Rs.	28.36	Rs.	31.25	per 1 sqm
C	3rd - Floor	Rs.	2.89	Rs.	36.85	Rs.	39.74	per 1 sqm
D	4th - Floor	Rs.	2.89	Rs.	45.33	Rs.	48.23	per 1 sqm
E	5th - Floor	Rs.	2.89	Rs.	53.82	Rs.	56.71	per 1 sqm
F	6th - Floor	Rs.	2.89	Rs.	62.31	Rs.	65.20	per 1 sqm
G	7th - Floor	Rs.	2.89	Rs.	70.80	Rs.	73.69	per 1 sqm
H	8th - Floor	Rs.	2.89	Rs.	79.29	Rs.	82.18	per 1 sqm
I	9th - Floor	Rs.	2.89	Rs.	87.78	Rs.	90.67	per 1 sqm
J	10th - Floor	Rs.	2.89	Rs.	96.27	Rs.	99.16	per 1 sqm
K	11th - Floor	Rs.	2.89	Rs.	104.75	Rs.	107.65	per 1 sqm
L	12th - Floor	Rs.	2.89	Rs.	113.24	Rs.	116.13	per 1 sqm
M	13th - Floor	Rs.	2.89	Rs.	121.73	Rs.	124.62	per 1 sqm
N	14th - Floor	Rs.	2.89	Rs.	130.22	Rs.	133.11	per 1 sqm
O	15th - Floor	Rs.	2.89	Rs.	138.71	Rs.	141.60	per 1 sqm
Note: - Centering & scaffolding charges for steel scaffolding with pipes, jack props, steel centring plates for unsupported heights of every 610 mm height above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item								

Note: It is recommended not to adopt centering and scaffolding rates of Casuarinas Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates for 3rd and above floors for stage scaffold, access scaffold and regular centering and shuttering items due to safety concerns.

For 3rd and upper floors, it is recommended to adopt CUP LOCK SCAFFOLD SYSTEM for stage scaffold, access scaffold and regular centering and shuttering items as appended in above sections.

D.CENTERING & SCAFFOLDING CHARGES-FLOOR WISE RATES for Steel scaffolding pipes, jack Props, Steel Centering Plates, etc.,

FLOOR		LINTELS	CHAJJ AS - SUNSH ADES	COLUMNS	BEAMS	SLABS - Up to 150 mm thick	SLABS - above 150 mm - Up to 300 mm thick	SLABS - above 300 mm thick	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	PERGOL A SLABS (Only Rib Beams)	ARCH BEAMS - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOVE SLABS	HELICAL STAIR- CASES	SHEAR WALLS, RCC WALLS, WATER TANK WALLS
Material Hire for any Floor	H	1386.00	274.00	417.00	2449.00	278.00	285.00	299.00	1008.00	707.00	2784.00	2823.00	4502.00	343.00	571.00
Labour Charges for 1st Floor	L	2045.00	314.00	2871.00	2408.00	273.00	281.00	294.00	991.00	695.00	2737.00	2776.00	4426.00	337.00	642.00
Total Hire Charges (H+L)	T	3431.00	588.00	3288.00	4857.00	551.00	566.00	593.00	1999.00	1402.00	5521.00	5599.00	8928.00	680.00	1213.00
Floor Charges															
1st - Floor	L	2045.00	314.00	2871.00	2408.00	273.00	281.00	294.00	991.00	695.00	2737.00	2776.00	4426.00	337.00	642.00
2nd - Floor	L	2250.00	345.00	3158.00	2649.00	300.00	309.00	323.00	1090.00	765.00	3011.00	3054.00	4869.00	371.00	706.00
3rd - Floor	L	2454.00	377.00	3445.00	2890.00	328.00	337.00	353.00	1189.00	834.00	3284.00	3331.00	5311.00	404.00	770.00
4th - Floor	L	2659.00	408.00	3732.00	3130.00	355.00	365.00	382.00	1288.00	904.00	3558.00	3609.00	5754.00	438.00	835.00
5th - Floor	L	2863.00	440.00	4019.00	3371.00	382.00	393.00	412.00	1387.00	973.00	3832.00	3886.00	6196.00	472.00	899.00
6th - Floor	L	3068.00	471.00	4307.00	3612.00	410.00	422.00	441.00	1487.00	1043.00	4106.00	4164.00	6639.00	506.00	963.00
7th - Floor	L	3272.00	502.00	4594.00	3853.00	437.00	450.00	470.00	1586.00	1112.00	4379.00	4442.00	7082.00	539.00	1027.00
8th - Floor	L	3477.00	534.00	4881.00	4094.00	464.00	478.00	500.00	1685.00	1182.00	4653.00	4719.00	7524.00	573.00	1091.00
9th - Floor	L	3681.00	565.00	5168.00	4334.00	491.00	506.00	529.00	1784.00	1251.00	4927.00	4997.00	7967.00	607.00	1156.00
10th - Floor	L	3886.00	597.00	5455.00	4575.00	519.00	534.00	559.00	1883.00	1321.00	5200.00	5274.00	8409.00	640.00	1220.00
11th - Floor	L	4090.00	628.00	5742.00	4816.00	546.00	562.00	588.00	1982.00	1390.00	5474.00	5552.00	8852.00	674.00	1284.00
12th - Floor	L	4295.00	659.00	6029.00	5057.00	573.00	590.00	617.00	2081.00	1460.00	5748.00	5830.00	9295.00	708.00	1348.00
13th - Floor	L	4499.00	691.00	6316.00	5298.00	601.00	618.00	647.00	2180.00	1529.00	6021.00	6107.00	9737.00	741.00	1412.00
14th - Floor	L	4704.00	722.00	6603.00	5538.00	628.00	646.00	676.00	2279.00	1599.00	6295.00	6385.00	10180.00	775.00	1477.00
15th - Floor	L	4908.00	754.00	6890.00	5779.00	655.00	674.00	706.00	2378.00	1668.00	6569.00	6662.00	10622.00	809.00	1541.00

Note: Centering & scaffolding charges for steel scaffolding with pipes, jack props, steel centring plates for unsupported heights of every 610 mm height or part thereof over and above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item

E. CENTERING & SCAFFOLDING CHARGES- FLOOR WISE RATES for Casurina Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates, Steel**Centring Plates etc., for unsupported height 3.66 M**

FLOOR		LINTELS	CHAJJA S - SUNSHA DES	COLUM NS	BEAMS	SLABS - Up to 150 mm thick	SLABS - above 150 mm - Up to 300 mm thick	SLABS - above 300 mm thick	WAFFL E - (GRID) SLABS (Rib Beams with Slabs)	PERGOL A SLABS (Only Rib Beams)	ARCH BEAMS - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOVE SLABS	HELICAL STAIR- CASES
Material Hire for any Floor	H	920.00	182.00	277.00	1625.00	184.00	189.00	198.00	669.00	469.00	1848.00	1874.00	2988.00	228.00
Labour Charges for 1st Floor	L	1558.00	239.00	2188.00	1835.00	208.00	214.00	224.00	756.00	530.00	2086.00	2116.00	3374.00	257.00
Total Hire Charges (H+L)	T	2478.00	421.00	2465.00	3460.00	392.00	403.00	422.00	1425.00	999.00	3934.00	3990.00	6362.00	485.00
Floor Charges														
1st - Floor	L	1558.00	239.00	2188.00	1835.00	208.00	214.00	224.00	756.00	530.00	2086.00	2116.00	3374.00	257.00
2nd - Floor	L	1714.00	263.00	2407.00	2019.00	229.00	235.00	246.00	832.00	583.00	2295.00	2328.00	3711.00	283.00
3rd - Floor	L	1870.00	287.00	2626.00	2202.00	250.00	257.00	269.00	907.00	636.00	2503.00	2539.00	4049.00	308.00
4th - Floor	L	2025.00	311.00	2844.00	2386.00	270.00	278.00	291.00	983.00	689.00	2712.00	2751.00	4386.00	334.00
5th - Floor	L	2181.00	335.00	3063.00	2569.00	291.00	300.00	314.00	1058.00	742.00	2920.00	2962.00	4724.00	360.00
6th - Floor	L	2337.00	359.00	3282.00	2753.00	312.00	321.00	336.00	1134.00	795.00	3129.00	3174.00	5061.00	386.00
7th - Floor	L	2493.00	382.00	3501.00	2936.00	333.00	342.00	358.00	1210.00	848.00	3338.00	3386.00	5398.00	411.00
8th - Floor	L	2649.00	406.00	3720.00	3120.00	354.00	364.00	381.00	1285.00	901.00	3546.00	3597.00	5736.00	437.00
9th - Floor	L	2804.00	430.00	3938.00	3303.00	374.00	385.00	403.00	1361.00	954.00	3755.00	3809.00	6073.00	463.00
10th - Floor	L	2960.00	454.00	4157.00	3487.00	395.00	407.00	426.00	1436.00	1007.00	3963.00	4020.00	6411.00	488.00
11th - Floor	L	3116.00	478.00	4376.00	3670.00	416.00	428.00	448.00	1512.00	1060.00	4172.00	4232.00	6748.00	514.00
12th - Floor	L	3272.00	502.00	4595.00	3854.00	437.00	449.00	470.00	1588.00	1113.00	4381.00	4444.00	7085.00	540.00
13th - Floor	L	3428.00	526.00	4814.00	4037.00	458.00	471.00	493.00	1663.00	1166.00	4589.00	4655.00	7423.00	565.00
14th - Floor	L	3583.00	550.00	5032.00	4221.00	478.00	492.00	515.00	1739.00	1219.00	4798.00	4867.00	7760.00	591.00
15th - Floor	L	3739.00	574.00	5251.00	4404.00	499.00	514.00	538.00	1814.00	1272.00	5006.00	5078.00	8098.00	617.00

Note: Centering & scaffolding charges for steel scaffolding with pipes, jack props, steel centring plates for unsupported heights of every 610 mm height or part thereof over and above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item

NEW DATA ITEMS - MODIFICATIONS TO DATA ITEMS**ANNEXURE-I**

1. In the rate analysis for Skirting/ Dadoing rate items with Ceramic Tiles/ Vitrified Tiles, the coefficients of manpower are replaced as illustrated below:

Category	Code	Detail	Coefficient	Unit
Manpower	CMM-011	Mason Cl- I / Brick layer Cl- I	0.96	day
	CMM-080	Mason Cl- II / Brick layer Cl-II	2.24	day
	CMM-089	Mazdoor (Unskilled)	3.30	day

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
A	SECTION	BRICKS & BUILDING BLOCKS
III	SUB-SECTION	AUTOCLAVED CONCRETE BLOCKS - Aerocon, Siporex, Nucon, NCL Aerated Blocks
C	SECTION	WALL & FLOOR TILES
		(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)
I	SUB-SECTION	NON-PORCELAIN CERAMIC FLOOR TILES - Somany, H & R Johnson, Naveen Ceramics, Kajaria, Nitco, Sphinx, Orient Bell, AGL, Hindware, Cera, Varmora, Vitero, Ambani, SUNHEART CERAMIK, Bandhan, Kerrogres by KAJARIA, Regency Tiles
II	SUB-SECTION	PORCELAIN VITRIFIED FLOOR TILES - H & R Johnson, H & R Johnson Marbonite, H & R Johnson Endura, H & R Johnson GPS, Naveen Ceramics, Kajaria, Nitco, Orient Bell, Hindware, AGL, RicasilCermaics Exxaro, Cera, Varmora, VITERO, Ambani, SUNHEART CERAMIK, Bandhan, Kerrogres by KAJARIA, OASIS, Regency Tiles
III	SUB-SECTION	CERAMIC WALL TILES - Somany, H & R Johnson, Kajaria, Sphinx, Orient Bell, AGL, Hindware, RicasilCermaics Exxaro, Cera, Varmora, Vitero, Ambani, SUNHEART CERAMIK, Bandhan, Nitco, Kerrogres by KAJARIA, OASIS, Regency Tiles
IV	SUB-SECTION	PORCELAIN WALL TILES - Somany, H & R Johnson, Kajaria, Sphinx, Orient Bell, Hindware, Ricasil Cermaics Exxaro, Cera, Varmora, VITERO, Ambani, NCL Vitristik for Ceramic vitrified tiles on floor, NCL Tilostik for fixing Granite stones and NCL Marbstik for fixing Marble stones, SUNHEART CERAMIK, Bandhan, Nitco, Kerrogres by KAJARIA, Regency Tiles
V	SUB-SECTION	GLASS MOSAIC TILES - Bisazza * Palladio * Expansive acqua reactive water barrier grouting system - NCL Tile grout
VI	SUB-SECTION	WALL CLADDING TILES - Somany, H & R Johnson, Kajaria, Sphinx, Orient Bell, Hindware, Cera, SUNHEART CERAMIK, Bandhan
VII	SUB-SECTION	TERRAZZO FLOOR TILES (PLAIN & CHEQUERED) - Super Decorative, Aditya Designer, Maha Bhima, Tricon, Pheonix, Eurocon, Ultra, Sphinx, Cemtech
VIII	SUB-SECTION	CEMENT CONCRETE FLOOR TILES (PLAIN & CHEQUERED) - Super Decorative, Aditya Designer, Maha Bhima, Tricon, Pheonix, Eurocon, Ultra, Sphinx, DEC Industries Pvt Ltd
IX	SUB-SECTION	PRE-CAST CONCRETE BLOCKS FOR PAVING - Super Decorative, Aditya Designer, Maha Bhima, Tricon, Pheonix, Eurocon, Ultra, Sphinx, Cemtech, DEC Industries PVT LTD, TUFFSTONES
X	SUB-SECTION	VINYL FLOORING - Marblax, Amstrong
		TILE ADHESIVE - MYK LATICRETE, Ambani, JK TileMaxX * Wall dado with cement-based adhesive - NCL Vitristik for Ceramic vitrified tiles * Cement based adhesive - NCL Tilostik for fixing Granite stones and NCL Marbstik for fixing Marble stones * Cement based Polymer modified jointing mortar - NCL Masonry glue * Cement based Polymer modified plastering mortar - NCL Render ; MAPEI , DEC Industries, Berger, Master Builders solutions, Kerakoll, Polyglaze
D	SECTION	TIMBER & ROOFING MATERIALS
VI	SUB-SECTION	ROOFING MATERIAL - DEC Industries PVT LTD
E	SECTION	STEEL MATERIALS
I	SUB-SECTION	MILD STEEL MATERIALS - MPL, APL Apollo, TATA, Jindal, JSW, VSP, SAIL, ISMT
III	SUB-SECTION	STAINLESS STEEL MATERIALS - DEC Industries PVT LTD, TATA, Jindal, JSW, VSP, ISMT, Technoraill(SS balustrade)
F	SECTION	GLASS MATERIALS - Modifloat, Asahi, Saint-Gobain, Binani, HNG, Gold Plus, SUKI

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Fire rated glass - ASAHI Pyrobel
G	SECTION	PAINTS & POLISHES - Asian Paints, Berger, Nerolac, British Paints, JK Cements, Nexon paints, Indocem, ESSAR, Sheenlac, Suryacem, Neon, Wallz, Walrus - SYNTHETIC PLASTER - NCL-Cement Primer (Interior, Exterior), NCL White Cement Putty, NCL-Alltek Spray Plaster, NCL-Skimcoat, Allteck Spray Plaster, NCL Gaiety, NCL-Delight, NCL-Harmony, NCL-Alltek Dune, NCL Alltek Acrylic Coarse, NCL Grey Coarse Putty, NCL Base Coat, NCL Flora, Allteck Deco Orient, MYK LATICRETE, Multichem, Essar, JK ShieldMaxX - White Cement, JK WhiteMaxX, LevelMaxX , JK GypsoMaxX , JK BondMaxX , Wall Putty (White cement based) JK WallMaxX, JK Primaxx(White Cement Based Primer), Smoothtek, Shalimar, Snowcem, Nippon, New World Paints Pvt. Ltd, Fortune Paints Pvt. Ltd, BAKELITE COATINGS AND PAINTS, NCL Topcoat paint, Alltek Trendy, Alltek Goldline, Dulux Professional, DEC Industries, JSW PAINTS
H	SECTION	PARTICLE BOARDS - NCL Bison, Ramco-Hilux, Ramco-Hicem, Everest-board, Visaka-board, Rajshri, Innsula, Birla Aerocon, Aerolite, Novopan, Bhutan-board, Greenply, Greenpanel, Kajariaply, ECOBOARD
J	SECTION	PLYWOODS, LAMINATES & VENEERS - Kitply, Century Ply, National Ply, Bhutan Ply, Samrat, Gurjan ply, Aamoda, Mayur, Amul Boards, Greenply, Greenpanel, Kajariaply, PRAYAG POLYMERS, Archidply/ M/S DEC Industries PVT Ltd , Almo Laminates, Black cobra, VIRGO, city BOND, Riyom Industries Pvt. Ltd.
		NATURAL FIBRE COMPOSITE BOARDS - Indowud
K	SECTION	CEILINGS, WALL PARTITIONS & WALL LININGS -Ramco-Hilux, Everest-board, Visakha-board, Rajshri, Innsula, Gypsum India, Saint-Gobain, Armstrong-Knauf Ceilings, Daikin, NCL-Seccolor, NC Bison, Rock Strength, Aerolite, USG Boral, Birla Aerocon, Diamond, Aerolite, DIAMOND FRAMES, Almo Laminates, DEC Industries, QUTE
L	SECTION	DOORS, SHUTTERS & FRAMES -
I	SUB SECTION	DOOR FRAMES
	L.I-01-02;07-10	CRCA FRAMES - NCL Buildtek, NCL FPS Door Frame, NCL Scientific Door Frames, Elixir, DEC Industries PVT LTD, Arpitha
	L.I- 03-06	PVC FRAMES - Sintex,Elgi,Polywood, NCL FPS Door Frame, Rehau, Nandi, DEC Industries PVT LTD, Galwin, Yashpoly
	L.I.11-13	GALVANISED STEEL FRAMES - NCL Buildtek,Elixir, DEC Industries PVT LTD, Arpitha
	L.I.17-19	WPC FRAMES - QUTE, Ecoste,HDHMR Doors - NCL, Greenpanel,Black cobra, DEC Industries Pvt Ltd
II	SUB SECTION	DOOR SHUTTERS
	L.II.01-12	FLUSH DOOR SHUTTERS - Anand, Raavila, Kutty, Standard, Shubhdwar, ITP, Rajshri, Masonite, Ambience, Aamoda,Greenpanel, Kajariaply, DEC Industries PVT LTD, Elegant Door and Ply Innovations, Black cobra
	L.II.13-17,26	CEMENT BONDED PARTICLE BOARD - NCL Prelaminated ABS door shutter, NCL-Bison, Elixir, Everest, Vishaka
	L.II.18,21-23,25	PVC SHUTTERS - Sintex, Polywood, Nandi, DEC Industries PVT LTD, Yashpoly
	L.II.19-20	HDF/MDF - Greenpanel
	L.II.24	STEEL SHUTTER - ULTIMATE SAFETY METAL DOORS, DEC Industries PVT LTD
	L.II.26	WPC SHUTTER - QUTE,HDHMR Doors - NCL, Ecoste, Ecocell, Greenpanel,Black cobra, DEC Industries Pvt Ltd
III	SUB SECTION	DOOR SHUTERS WITH FRAMES
	L.III.01-05;13-17	PVC - NCL - Zylos, Sintex, Polywood, Nandi, Ecocell, Greenpanel, Black

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		cobra, DEC Industries PVT LTD, Galwin, Yashpoly
	L.III.06-07,31	CEMENT BONDED PARTICLE BOARD - NCL Prelaminated ABS door shutter, Everest, Vishaka, Elixir
	L.III.08-12;30	UPVC DOORS - Eroline/Sarvesh, QUTE, Marcolini, Aparna-Venster, Elgi, Oasis, NCL - Zylos, Fenesta, LG, SUDHAKAR PROFILE SYSTEMS, DEC Industries PVT LTD, Plastone, EUREKA WINDOOR SYSTEMS, NCL UPVC Door Shutter, Rehau
	L.III.18-20,29	MILD STEEL DOORS - ULTIMATE SAFETY METAL DOORS, DEC Industries PVT LTD, SHREEJI WOODCRAFT PVT LTD
	L.III,21	STAINLESS STEEL DOOR - ULTIMATE SAFETY METAL DOORS, SHREEJI WOODCRAFT PVT LTD, Ahlada, DEC Industries Pvt Ltd
	L.III.22-25	FIRE RATED DOORS - SHREEJI WOODCRAFT PVT LTD, Shakti Hormann, DEC Industries Pvt Ltd
	L.III.26-27	CLEAN ROOM DOORS - Shakti Hormann, Eroline/Sarvesh, QUTE, Ahlada, DEC Industries Pvt Ltd
	L.III.28	FPVC DOORS - NCL, DEC Industries Pvt Ltd.
	L.III.31-34	BISON LAM DOORS - NCL Bison, Vishaka, Everest
IV	SUB SECTION	CUPBOARD DOORS
	L.IV.01-02	CEMENT BONDED PARTICLE BOARD - NCL Prelaminated ABS door shutter, NCL-Bison, Elixir, Everest, Vishaka
	L.IV.03	PVC - Sintex, Polywood, Nandi, DEC Industries PVT LTD, Yashpoly
	L.IV.05	BISON PANEL - NCL Bison, Vishaka, Everest
M	SECTION	WINDOWS
I	SUB SECTION	OPENABLE WINDOWS
	M.I.01-18	PREPAINTED STEEL WINDOWS - NCL-Buildtek, Elixir, Ahlada, DEC IndustriesPVT LTD, Schueco, SS Secure, Ahlada
	M.I.19-22	GALVANIZED POWDER COATED WINDOWS - NCL-Buildtek, Fenesta, Ahlada, ecoVUE, DEC Industries PVT LTD, Schueco, SS Secure, Ahlada
	M.I.23-25	UPVC WINDOWS - Eroline/Sarvesh, Ambience, NCL-Buildtek, Elixir, Elgi, Oasis, NCL- Wintech, Fenesta, LG, Ahlada, Rehau, Arpitha, Win-Eshtas-Viswajeet Industries, Aparna Venster, QUTE, ecoVUE, Marcolini,EUREKA WINDOOR SYSTEMS, DEC Industries PVT LTD, NCL Veka, Plastone
	M.I.26-29	CEMENT BONDED PARTICLE BOARD WITH PPS SECTIONS - NCL-Buildtek, NCL-Bison, DEC Industries PVT LTD, Schueco
	M.I.30-39	BISON LAM - NCL-Buildtek, NCL-Bison
II	SUB SECTION	SLIDING WINDOWS
	M.II.01-09	GALVANIZED STEEL WINDOWS - NCL-Buildtek, Fenesta, Ahlada, ecoVUE, DEC Industries PVT LTD, Schueco, SS Secure, Ahlada
	M.II.10-15	UPVC WINDOWS - Eroline/Sarvesh, Ambience, QUTE, Elixir, Elgi, Oasis, NCL- Wintech, Fenesta, LG, Ahlada, Rehau, Arpitha, Win-Eshtas-Viswajeet Industries, Aparna Venster, NCL-Buildtek, ecoVUE, Marcolini, EUREKA WINDOOR SYSTEMS, DEC Industries PVT LTD, NCL Veka, Plastone, SS Secure
III	SUB SECTION	VENTILATORS
	M.III.01-06,09-13	PREPAINTED STEEL - NCL-Buildtek, Elixir, Ahlada, DEC IndustriesPVT LTD, Schueco, SS Secure
	M.III.07-08	UPVC - Eroline/Sarvesh, Ambience, QUTE, Elixir, Elgi, Oasis, NCL- Wintech, Fenesta, LG, Ahlada, Rehau, Arpitha, Win-Eshtas-Viswajeet Industries, Aparna Venster, NCL-Buildtek, ecoVUE, Marcolini, EUREKA WINDOOR SYSTEMS, DEC Industries PVT LTD, NCL Veka, Plastone, SS Secure
N	SECTION	STRUCTURAL GLAZING & CURTAIN WALLING - NCL Buildtek, NCL-Bison, Elixir, Sintex, Elgi, Oasis, Polywood, Sintex, NCL - Zylos, Fenesta, LG, Rehau, Arpitha, EUREKA WINDOOR SYSTEMS, DEC

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Industries Pvt Ltd
P	SECTION	FIXTURES FOR DOORS & WINDOWS - Jyoti, Classic, Hardwyn, AKS for SS, Crown, GLOBEL (Aluminium Udyog)/Prayag Polymer, EUREKA WINDOOR SYSTEMS, M/s DEC Industries Pvt Ltd, Global ISI, Assa Abloy, Dorset
Q	SECTION	CONSTRUCTION CHEMICALS & ADMIXTURES
		MAKE, APPLICATION METHOD, AREA AND DOSAGE
I	SUB-SECTION	PLASTICIZERS
	TBSC-Q.I-01	* Consplax of Armstrong Chemicals Pvt Ltd, Bengaluru * Conplast of Fosroc Chemicals India Pvt Ltd, Bengaluru (200ml /50Kgs Cement)* Zoriplax of Protect More Construction chemicals, Hyderabad. (Dosage 20ml per 50 Kgs cement). for M 20 + grade concrete works in slabs /canal lining works/ roads works**MYK SAVEMIX SERIES M/S by MYK Schomburg,Hyderabad.* "MYK SAVEMIX" dosage from 0.5% - 1.5% by weight of cement * BONDUF CONSTRUCTION CHEMICALS/ Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products/ DEC Industries PVT LTD , MAPEI Berger, TP Buildtech, Master Builders Solutions, Chryso
	TBSC-Q.I-02	* Roofplast HS 100 of Armstrong Chemicals Pvt Ltd, Bengaluru * Structuro100 of Fosroc Chemicals India Pvt Ltd, Bengaluru * Zoriplast HS of Protect More Construction Chemicals, ** MYK Remecrete P30 M/S by MYK Schomburg,Hyderabad.* Dosage 0.5 to 1 Ltr per 100kgs of Cement *BONDUF CONSTRUCTION CHEMICALS/ Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD , MAPEI, Berger,TP Buildtech, Master Builders Solutions, Chryso
	TBSC-Q.I-03	*Roofplast SP 35of Armstrong Chemicals Pvt Ltd. Bengaluru *Conplast SP 337 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriplast SP 350 of Protect More Construction chemicals. * Rheomac 707 of BASF *Conflow (Dosage: 200ml to 500ml per bag of 50 Kgs Cement) . for M30+ grade concrete works like road projects / Canal linings / Dams / Reservoirs / Building's concrete works * Power35 of EBT (Dosage : 300 ml to 500 ml Per Bag of 50 Kgs Cement) * MYK Savemix RP 333 M/S by MYK Schomburg,Hyderabad.* Dosage at a rate between 0.15 and 0.40 kgs /50 kg cement * NCL Vitristik * BONDUF CONSTRUCTION CHEMICALS * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD, MAPEI, Berger, TP Buildtech, Master Builders Solutions, Chryso
	TBSC-Q.I-04	*Roofplast SP 45 of Armstrong Chemicals Pvt Ltd, Bengaluru*Consplast SP 430 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriplast SP 450 of Protect More Construction Chemicals (Dosage: 200ml to 500ml per bag of 50 Kgs Cement) for high early strength and high range water reducing admixture for M40+ grade concrete works like road projects/Canal linings/Dams/Reservoirs /Building's concrete works *Power45 of EBT (Dosage : 300 ml to 500 ml Per Bag of 50 Kgs Cement) * MYK Remecrete PC10 M/S by MYK Schomburg,Hyderabad.* Dosage rangebetween0.3to2.5ltrs/100 kg of cementitious material * BONDUF CONSTRUCTION CHEMICALS * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD , MAPEI , BergerTP Buildtech, Master Builders Solutions, Chryso
	TBSC-Q.I-05	*Roofplast SR 45 of Armstrong Chemicals Pvt Ltd, Bengaluru*Conplast RP264 of Fosroc Chemicals India Pvt Ltd, Bengaluru*Zoriplast SRT 5 of Protect More Construction Chemicals (Dosage : 300ml to 400ml per bag of 50 Kgs Cement).For delaying of initial setting time and M 40+

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Grade concrete works * Power SR 45 of EBT (Dosage: 200 ml to 500 ml per bag of 50 Kgs Cement) * MYK Savemix RP 333 M/S by MYK Schomburg, Hyderabad.* Dosage at a rate between 0.15 and 0.40 kgs /50 kg cement * BONDTUF CONSTRUCTION CHEMICALS * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD , MAPEI, Berger, TP Buildtech, Master Builders Solutions, Chryso
	TBSC-Q.I-06	*Roofplast SCA of Armstrong Chemicals Pvt Ltd, Bengaluru*Conplast NC of Fosroc Chemicals India Pvt Ltd, Bengaluru*Zoriset of Protect More Construction Chemicals (Dosage:1 Kg to 3 Kgs per bag of 50 Kgs Cement depending on the setting time required).For shotcrete / Guniting / Emergency concrete works * Power-200 of EBT or Equivalent (Dosage:1 Kg to 3 Kgs per bag of 50 Kgs Cement depending on the setting time required) * BONDTUF CONSTRUCTION CHEMICALS * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD , MAPEI, Berger, TP Buildtech, Master Builders Solutions, Chryso
	TBSC-Q.I-07	ALSTRONG CA 353 of M/s. Armstrong Chemicals Pvt Ltd , Bengaluru / ZORIBOND CRA 35 of M/s. Protect More Construction Chemicals (PMCC). POWER n STRENGTH of M/s. EBT Construction Chemicals/ FOSROC (500ml Per Bag of 50 Kgs Cement) * BONDTUF CONSTRUCTION CHEMICALS * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD , MAPEI, Berger, TP Buildtech, Master Builders Solutions, Chryso
II	SUB-SECTION	WATER PROOFING COMPOUNDS
	TBSC-Q.II-01	*Rainproof No.1 of Armstrong Chemicals Pvt Ltd Bengaluru *Conplast 421 of Fosroc Chemicals India Pvt Ltd Bengaluru (125ml Per 50 Kgs Cement) *Zoriproof No.1 of Protect More construction Chemicals. : (Dosage : 100ml Per Bag of 50 Kgs Cement) *MYK PROOF WP10 M/S by MYK SCHOMBURG, Hyderabad. Dosage - 150-200Gms per bag of cement * E160 of Ardex Endura : (200 ml per 50 Kgs Bag), Pidilite * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products * Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products, IWL, Chryso, Acebond, MAPEI , BERGER, Master Builders solutions, Kerakoll
	TBSC-Q.II-02	*Roofbond RFX of Armstrong Chemicals Pvt Ltd, Bengaluru. *Brushbond RFX of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoricoat RX of Protect More Construction Chemicals.*Masreaseal 550 Grey of Base. (12-14 m2 in two coats to achieve 1mm thickness). Terrace, Water Tanks, Walls Waterproof Coatings : of Two Part System: *EBT - Power RFX *MYK BETOCRETE C-35 M/S by MYK Schomburg, Hyderabad Dosage - 0.8 - 1.5% by weight of cement * WPM 004 of Ardex Endura : (12-14 m2 in two coats to achieve 1mm thickness) * PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products * Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products, IWL, Chryso, Acebond, MAPEI , BERGER, Master Builders solutions, Kerakoll, DEC Industries Pvt Ltd
	TBSC-Q.II-03	* Roof coat of Armstrong Chemicals Pvt Ltd, Bengaluru * Brushbond of Fosroc Chemicals India Pvt Ltd, Bengaluru * Zoricoat of Protect More Construction Chemicals Terrace, Water Tanks, Walls, Reservoirs Waterproofing Coatings : Surface treatments* Asian Paints *MYK AQUAFIN ADMIX M/S by MYK Schomburg, Hyderabad-Dosage Rate: w/c ratio < 0.45: 2 % of cement content w/c ratio > 0.45: 3 % of cement content * WPM 004 OF Ardex Endura * PIDILITE INDUSTRIES LIMITED *

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products, IWL, Chryso, Acebond , MAPEI , BERGER, Master Builders solutions, Kerakoll, DEC Industries Pvt Ltd
	TBSC-Q.II-04	*Rainseal of Armstrong Chemicals Pvt Ltd, Bengaluru *Proofex SM of Fosroc Chemicals India Pvt Ltd, Bengaluru, *Zoricoat XL of Protect More Construction Chemicals. wherever highly flexible, crack bridging ,waterproofing required (Coverage : 50 to 60 SFT Per/Ltr/Coat) (for brush / spray application add 20% water per Ltr) Terrace, Walls Highly Flexible Waterproof Liquid Membrane pure Acrylic Coatings : **MYK Coat WPU-1K(E) M/S by MYK Schomburg, Hyderabad-Coverage at minimum of 1.8 kg per m2 for thickness of 1.1 mm * WPM 004 OF Ardex Endura * PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products , IWL, Chryso, Acebond, MAPEI , BERGER, Master Builders solutions, Kerakoll
	TBSC-Q.II-05	*Rapid strong QS of Armstrong Chemicals Pvt Ltd Bengaluru *Patchro C of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zorirapidr of Protect More Construction Chemicals * Conflow (Dosage : 1 to 3 Ltrs per bag of 50 Kgs Cement depending on the setting time required). * CLEAN TECH CORROSION CHEMICALS Concure Plus (200 -250 ml per Bag of cement)For emergency works/Anti wash and under water concreting: *MYK AQUAFINTGM/ Sby MYK Schomburg, Hyderabad Dosage Rate:at1.5-2.5kg/m ² . * A4/5 WPM 401 of Ardex Endura * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products , IWL, Chryso, Acebond, MAPEI , BERGER, Master Builders solutions, Kerakoll
	TBSC-Q.II-06	*Rainseal Flexi Coat B30 of Armstrong Chemicals Pvt Ltd, Bengaluru *Fosroc Chemicals India Pvt Ltd, Bengaluru. *Zoricoat BL of Protect More Construction Chemicals. : wherever highly flexible, crack bridging, Sewage treatment plants, pipelines, Reservoirs and waterproofing required. *MYK Schomburg * WPM 004 of Ardex Endura * PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products, IWL , Chryso, Acebond, MAPEI , BERGER, Master Builders solutions, Kerakoll
	TBSC-Q.II-07	ROOFBOND FRC of M/s. Armstrong Chemicals Pvt Ltd, Bengaluru / ZORICOAT FRC of M/s. Protect More Construction Chemicals (PMCC). POWER n BOND FRX 2 of M/s. EBT Construction Chemicals / FOSROC (Coverage : 30 to 40 SFT / Ltr / Two coats) * PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products , IWL, Chryso, Acebond, MAPEI , BERGER, Master Builders solutions, Kerakoll
	TBSC-Q.II-08	RAINSEAL CFR of M/s. Armstrong Chemicals Pvt Ltd, Bengaluru / ZORICOAT EFC of M/s. Protect More Construction Chemicals (PMCC). POWER n COAT EFC of M/s.EBT Construction Chemicals/FOSROC *PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products, IWL, Chryso, Acebond, MAPEI , BERGER, Master Builders solutions, Kerakoll
	TBSC-Q.II-09	ALSTRONG CC 153 of M/s. Armstrong Chemicals Pvt Ltd, Bengaluru / ZORIBOND CTC 15 of M/s. Protect More Construction Chemicals (PMCC) (Coverage : 1 Ltr 20 SFT / 2 Coats). POWER n STRENGTH PEN of M/s. EBT Construction Chemicals /FOSROC *PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products , IWL, Chryso,

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Acebond, MAPEI , BERGER, Master Builders solutions, Kerakoll
	TBSC-Q.II-10	ROOFCARE PU of M/s. Armstrong Chemicals Pvt Ltd, Bengaluru / ZORICOAT PU of M/s. Protect More Construction Chemicals (PMCC) , POWER n COAT BPU of M/s. EBT Construction Chemicals / FOSROC. *PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products , IWL, Chryso, Acebond, MAPEI , BERGER, Master Builders solutions, Kerakoll
	TBSC-Q.II-11	ROOFCARE WR of M/s. Armstrong Chemicals Pvt Ltd, Bengaluru / ZORICOAT WR of M/s. Protect More Construction Chemicals (PMCC),POWER n REPEL WR of M/s. EBT Construction Chemicals / FOSROC/ PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products , IWL, Acebond, MAPEI , BERGER, Master Builders solutions, Kerakoll
III	SUB-SECTION	BONDING AGENTS/ ADHESIVES
	TBSC-Q.III-01	*Roofbond PB of Armstrong Chemicals Pvt Ltd Bengaluru *Nitobond AR of Fosroc Chemical India Pvt Ltd Bengaluru *Zoribond PB of Protect More Construction Chemicals. (Mix: 1:1 ratio of cement)50 SFT / Ltr /coat depending on the substrate) On terrace old concrete to new mortar / screed : *MYK bond AR 43 M/S by MYK Schomburg, Hyderabad*Coverage: as a bonding agent: approximate 4 - 5 m2 / kg depending on substrate porosity* E135 of Ardex Endura (2.5 Lit for 50 Kgs of cement) , Chryso, Acebond, MAPEI
	TBSC-Q.III-02	*Roofbond SBR of Armstrong Chemicals Pvt Ltd Bengaluru *Nitobond SBR of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoribond SBR of Protect More Construction Chemicals. (50 SFT / Ltr /coat depending on the substrate) For ceiling / concrete repairs and bonding : mortar/concrete *MYK bond SBR 45 M/S by MYK Schomburg, Hyderabad* Dosage :For patching and repair mortars and plaster for masonry 10 Ltr of MYK Bond SBR per 50 Kgs- cement* E135 of Ardex Endura(2.5Litfor50Kgsofcement)/ M/S DEC Industries manufactured products , Chryso, Acebond, MAPEI
	TBSC-Q.III-03	*Roofbond EP of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitobond EP of Fosroc Chemicals India Pvt Ltd, Bengaluru*Zoribond EP of Protect More Construction Chemicals. (Coverage : 20 - 25 SFT / Kg /Coat) For Structural concrete repairs / bonding : Old concrete to new concrete epoxy bonding : *MYK Bond EB A M/Sby MYK Schomburg, Hyderabad* Coverage Approx.2.6 Sq.Mtr per 1 kgs * EP 300 of Ardex Endura (10 sqm per 5 Lit per coat of 50 microns)* Epoxy emulsion grout/synthetic/resin adhesive -NCL Vitristik Ceramic & Vitrified tile, Chryso, Acebond, MAPEI
	TBSC-Q.III-04	Admix AD1 of Ardex Endura
		Silver/Diamond &Platinum stars of Ardex Endura
		ALSTRONG CA 353 of M/s. Armstrong Chemicals Pvt Ltd , Bengaluru / ZORIBOND CRA 35 of M/s. Protect More Construction Chemicals (PMCC). POWER n STRENGTH of M/s. EBT Construction Chemicals / FOSROC (500ml Per Bag of 50 Kgs Cement) , Chryso, Acebond, MAPEI
		ALSTRONG CB 253 of M/s. Armstrong Chemicals Pvt Ltd , Bengaluru / ZORIBOND CB 25 of M/s. Protect More Construction Chemicals (PMCC). POWER n BOND RGB of M/s. EBT Construction Chemicals / FOSROC (Coverage : 1 Ltr / 40 SFT / Coat) , Chryso, Acebond, MAPEI
	TBSC-Q.III-05	M/S DEC Industries manufactured products
IV	SUB-SECTION	ANTI-CORROSIVE AGENTS
	TBSC-Q.IV-01	*Roofguard AC of Armstrong Chemicals Pvt Ltd Bengaluru *Fosroc

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Chemicals India Pvt Ltd Bengaluru*Zoriguard AC of Protect More Construction Chemicals.(40 SFT Per Ltr / Coat) * CLEAN TECH CORROSION CHEMICALS Concure-XL (200 ml to 250 ml per Bag of Cement To protect the exposed reinforcement / steel structures against corrosion : *MYK RUST Remover M/S by MYK Schomburg, Hyderabad*, IWL, Chryso, Acebond, MAPEI
	TBSC-Q.IV-02	*Roofguard RC of Armstrong Chemicals Pvt Ltd Bengaluru *Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriguard RC of Protect More Construction Chemicals Hyderabad. (50 SFT Per Ltr / Coat) During repairs to protect, to convert the rust of reinforcement / steel : *MYK RUST CONVERTOR M/S by MYK Schomburg, Hyderabad*, IWL, Chryso, Acebond, MAPEI
	TBSC-Q.IV-03	*Roofguard ZP of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitoprime Zinc Rich of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriguard ZP of Protect More Construction Chemicals, Hyderabad. (Coverage : 4 Sq.Mtr. /Ltr / Coat) *MYK Savemix CN 100 M/S by MYK Schomburg, Hyderabad - Recommended 0.90 chloride to nitrite ratio 30% CaNO ₂ Sol * EP 410 of Ardex Endura (Coverage : 10 Sq.Mtr. /5 Ltr / Coat of 250 Microns) , IWL, Chryso, Acebond, MAPEI
	TBSC-Q.IV-04	Supply of anti-corrosion admixture inhibitor liquid as per Central Electro Chemical Research Institute developed specification and licensee of Concure or Concure Plus or Equivalent (300 ml to 500 ml per Bag of 50 Kgs Cement)/ DEC Industries PVT LTD , IWL, Chryso, Acebond, MAPEI
V	SUB-SECTION	GROUTS
	TBSC-Q.V-01	*Rapidstrong Grout AG of Armstrong Chemicals Pvt Ltd, Bengaluru*Lock fix of Fosroc Chemicals India Pvt Ltd, Bengaluru*Zori fix of Protect More Construction Chemicals (Yield 0.5 Ltrs / 1 Kg Pack) Anchoring /fix the steel bars into the rocks, concrete for foundations, extension of concrete :*EBT Power Anchor grout . (Yield 0.5 Ltrs / 1 Kg Pack) *MYK GROUT M 65 Yield: 13.0 Ltsatflowableconsistencyfor25KgsofHDPEbags/ M/S DEC Industries manufactured products , IWL, Chryso, Acebond, MAPEI , Berger, Kerakoll, Polyglaze
	TBSC-Q.V-02	*Rapidstrong Grout GP2 of Armstrong Chemicals Pvt Ltd, Bengaluru*Conbextra GP2 of Fosroc Chemicals India Pvt Ltd, Bengaluru*Zori grout GP 2 of Protect More Construction Chemicals For machinery / thin sections of concrete joints Filling : *EBT Power GP2 Grout (Yield 13.5 Ltrs Per 25 Kgs Bag). *MYK Schomburg MYK Grout Inject E-200 Approx. 1.06 kg for filling up of 1000 cc/ M/S DEC Industries manufactured products , IWL, Chryso, Acebond, MAPEI , Berger, Kerakoll, Polyglaze
	TBSC-Q.V-03	*Rapidstrong Grout EP of Armstrong Chemicals Pvt Ltd , Bengaluru*Conbextra EP10 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zori grout EP of Protect More Construction Chemicals. (Two parts system).(Density 1.07 Kg Per Ltr)For Structural strengthening, filling of honeycomb / voids in the concrete : *EBT Power EPL Grout *MYK Schomburg MYK Grout EP750 (Yield: Approx. 9.5 Liter volume per 19 kg pack) , IWL, Chryso, Acebond, MAPEI , Berger, Kerakoll, Polyglaze
	TBSC-Q.V-04	*Rapidstrong Grout EP3 of Armstrong Chemicals Pvt Ltd, Bengaluru *Conbextra EP300 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zori grout EP3 of Protect More Construction Chemicals. Concrete strengthening and filling concrete repairs *EBT Power EP Grout *MYK Schomburg MYK INDUGROUT-EP10 approx. 1.60 kg/liters or 16.0 k g/10 mm thick gap/m ² . , IWL, Chryso, Acebond, MAPEI , Berger,

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Kerakoll, Polyglaze
	TBSC-Q.V-05	RAPIDSTRONG GROUT PU of M/s. Armstrong Chemicals Pvt Ltd , Bengaluru / ZORIGROUT PU of M/s. Protect More Construction Chemicals (PMCC). M/s. POWER n GROUT RPU of M/s. EBT Construction Chemicals / FOSROC, IWL, Chryso, Acebond, MAPEI , Berger, Kerakoll, Polyglaze
VI	SUB-SECTION	MISCELLANEOUS CHEMICALS
	TBSC-Q.VI-01	*Roofcare MRA of Armstrong Chemicals Pvt Ltd, Bengaluru *Reebol of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zorislip of Protect More Construction Chemicals (Coverage: 1 Ltr will cover approx. 20 to 30m2 on method and material of the form) *MY Schomburg * DEC Industries PVT LTD , IWL, Chryso, Acebond
	TBSC-Q.VI-02	*Rapidstrong FM of Armstrong Chemicals Pvt Ltd, Bengaluru *Fosroc Chemicals India Pvt Ltd. Bengaluru. *Zorifloor NH of Protect More Construction Chemicals. :(Coverage : May be applied at rate 3.5 Kgs /m2 over green concrete for normal traffic & 6-12 Kg / M2 for heavy traffic. Higher application rates yield better abrasion resistance)* EBT PowerHard M-100 *MYK Schomburg, IWL, Chryso, Acebond
	TBSC-Q.VI-03	* Rapidstrong NH of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitoflor Hardtop/Hard Standard of Fosroc Chemicals India Pvt Ltd, Bengaluru. * Zorifloor DH of Protect More Construction Chemicals* Mastertof 100 Grey of BASF :(Coverage : May be applied at rate 3.5 Kgs /m2 over green concrete for normal traffic & 6-12 Kg / M2 for heavy traffic. Higher application rates yield better abrasion resistance) *EBT PowerHard NM-100. (Coverage: May be applied at rate 3.5 Kgs /m2 over green concrete for normal traffic & 6-12 Kg / M2 for heavy traffic) *MYK Schomburg MYK TOP 150 Application rate Kg/M2 Intended traffic use AvgWear (IS1237-1980) 7 kgs Heavy <2mm 5 Kgs Medium >2<3.5mm 3 kgs Light>3.5<4mm, IWL, Chryso, Acebond
	TBSC-Q.VI-04	*Roofcrete MC of Armstrong Chemicals Pvt Ltd, Bengaluru / *Rendroc RG of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoricrete MC of Protect More Construction Chemicals. *MYK Schomburg MYK Top 200 Coverage : Light traffic 2.5 to 3.5 edium traffic 4 to 5 kg/m ² Heavy traffic 6 to 7 kg/m ² / M/S DEC Industries manufactured products , IWL, Chryso, Acebond
	TBSC-Q.VI-05	*Roofcrete AR of Armstrong Chemicals Pvt Ltd, Bengaluru *Cemtop 400 SD of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoricrete CMG of Protect More Construction Chemicals. To achieve High Strength Concreting / Structural rehabilitation / concrete repairs : *MYK Schomburg MYK SOLOPLAN -30 For layers of less than 20 mm recommend 5.0 - 5.4 L of water to 25 kg of SOLOPLAN- 30.Forlayersof 20mmandhigher,werecommend4.7- 5.1Lofwaterto25kgof SOLOPLAN-30 * Expansive acqua reactive water barrier grouting system - NCL Tile grout, IWL, Chryso, Acebond
	TBSC-Q.VI-06	*Roofcrete EM of Armstrong Chemicals Pvt Ltd, Bengaluru *Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoricrete ERM of Protect More Construction Chemicals. For wherever repeated failures takes place, resistance to chemicals. Repairing of Deteriorated concrete with High Strength Flexural / Compressive Strength with High Standard Bonding: *MYK Schomburg MYK Crete CMS 4500 M/Sby MYK Schomburg, Hyderabad*appliedupto50mmthicknessat2kgperm2 at 1mmthickness. , IWL, Chryso, Acebond
	TBSC-Q.VI-07	*Roofex of Armstrong Chemicals Pvt Ltd, Bengaluru *Brushbond Tap of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoripex of Protect More Construction Chemicals. For Negative Water Pressure Treatments like Cellar / Ceiling areas etc., : *MYK Schomburg, IWL, Chryso

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
	TBSC-Q.VI-08	*Roofseal PU of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitoseal PU 280 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriseal PU of Protect More Construction Chemicals. For Expansion Joints / Terrace Cracks / Wall & Beam junction cracks ; Runway Joints etc., : *MYK Schomburg, IWL, Chryso, Acebond
	TBSC-Q.VI-09	* Roofseal PS of Armstrong Chemicals Pvt Ltd, Bengaluru * Thioflex 600 of Fosroc Chemicals India Pvt Ltd, Bengaluru * Zoriseal PS of Protect More Construction Chemicals. For Expansion Joints / Terrace Cracks : *MYK Schomburg, IWL, Chryso, Acebond
	TBSC-Q.VI-10	*Wonderseal XL of Armstrong Chemicals Pvt Ltd, Bengaluru *Decofil of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriseal XL of Protect More Construction Chemicals. External / Internal Wall Cracks Sealing *MYK Schomburg, IWL, Chryso, Acebond
	TBSC-Q.VI-11	*Wonderseal Plug of Armstrong Chemicals Pvt Ltd, Bengaluru *Renderroc Plug of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriseal Plug of Protect More Construction Chemicals. , IWL, Chryso, Acebond
	TBSC-Q.VI-12	*Roofcoat PU400 of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitocote UR 512 of Fosroc Chemicals India Pvt Ltd, Bengaluru*Zoricoat PU of Protect More Construction Chemicals. for floorings / Walls. , IWL, Chryso, Acebond
	TBSC-Q.VI-13	*Roofguard CTE of Armstrong Chemicals Pvt Ltd, Bengaluru*Nitocote ET 550 of Fosroc Chemicals India Pvt Ltd, Bengaluru/ *Zoriguard CTE of Protect More Construction Chemical. : tar-based epoxy coating for sewage treatment plants, pipelines protective coating for steel reinforcement. , IWL, Chryso, Acebond
	TBSC-Q.VI-14	*Roofexure WB of Armstrong Chemicals Pvt Ltd, Bengaluru *Concure WB of Fosroc Chemicals Pvt Ltd, Bengaluru *Zoricure WB of Protect More Construction Chemicals. (Coverage : 4 Sq. Mtrs / Ltr / Coat)/ M/S DEC Industries manufactured products , IWL, Chryso, Acebond, Berger
	TBSC-Q.VI-15	*Rainseal BS of Armstrong Chemicals Pvt Ltd, Bengaluru *Fosroc Chemicals India Pvt Ltd, Bengaluru. *Zoriseal BS Grade 'A' of Protect More Construction Chemicals. for construction joints of roads / bridges. , IWL, Chryso, Acebond
	TBSC-Q.VI-16	*Rainseal BT Primer of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitoproof 100 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriprime BT of Protect More Construction Chemicals, IWL, Chryso, Acebond
	TBSC-Q.VI-17	*Roofplast AEA of Armstrong Chemicals Pvt Ltd Bengaluru*Conplast AEA of Fosroc Chemicals India Pvt Ltd, Bengaluru (Dosage : 200ml Per 50 Kgs Cement)*Zoriplast AEA of Protect More Construction Chemicals. (Dosage : 15ml to 20ml per bag of 50 Kgs Cement) For entrainment of air, recommended for canal lining works, mass concreting etc : *EBT Power AEA Plasticizer (Dosage : 15ml per Bag of 50 Kgs Cement) , IWL, Chryso, Acebond
		Belmix, IWL, Chryso, Acebond
		Macro Synthetic Fibers of Propex ASTM C1116/ 1116M -45mm length for CC Roads, Ground Supported Slabs, Pavements, Sprayed Concrete, Tunnel linings, Mining etc., 4 to7 kg per 1 CuM, IWL, Chryso, Acebond
		Steel Fibers of PropexNovocon HE05535 EN 14889-1:2006 -35mm length for CC Roads, Ground Supported Slabs, Pavements, Sprayed Concrete, Tunnel linings, Mining etc., 15 to 22 kg per 1 CuM, IWL, Chryso, Acebond
		ALSTRONG CM 666 of M/s. Armstrong Chemicals Pvt Ltd , Bengaluru / ZORICOAT CM of M/s. Protect More Construction Chemicals (PMCC).

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		M/s. POWER n GUARD ADM of EBT Construction Chemicals / FOSROC (Coverage : 1 Ltr / 40 SFT / Coat) , IWL, Chryso, Acebond
		Anticarbonation coating for Concrete structures- Belmix
		PU coating for steel structures - Belmix
VII	SUB-SECTION	REPAIRING & TREATMENT WORKS
	TBSC-Q.VII-1	RAINSEAL FELT of Armstrong / Fosroc / ZORIFELT BT of PMCC, Supreme Tar Products/ Shivam Tarfelt (Membrane felt) , IWL
	TBSC-Q.VII-2	RAINSEAL HDP 1500 of Armstrong / Fosroc / ZORISHIELD 1500 of PMCC/Roofshield/ Shivam Tarfelt, IWL
	TBSC-Q.VII-3	RAINSEAL BT PRIMER of Armstrong / Fosroc /STP/PMCC/ Asian/ LeakShield, IWL
	TBSC-Q.VII-4	ROOFBOND RFX of Armstrong /BRUSHBOND RFX of Fosroc / ZORIBOND RFX of PMCC. * MYK Schomburg MYK AQUAFIN TG M/S by MYK Schomburg,Hyderabad.* MYK AQUAFIN TG is two component cementations, polymer dispersion based flexible protective coating and waterproof barrier. This product is two-component and resistant to water, moisture and abrasion. Dosage Rate: MYK AQUAFINTG to be applied typically at 1.5-2.5kg/m ² ., IWL
	TBSC-Q.VII-5	RAINSEAL FLEXICOAT B 300 of Armstrong / NITOPROOF 120 of Fosroc /ZORICOAT BL of PMCC (Coverage : 1Ltr /100 SFT/ Each Coat) diluting with water at 1:1 ratio as a primer coat. RAINSEAL FLEXICOAT B 300 of Armstrong / NITOPROOF 120 of Fosroc /ZORICOAT BL of PMCC topcoat diluting with 20% of water (Coverage : 1Ltr /5 Sqm /Each Coat) , IWL
	TBSC-Q.VII-6	RAINSEAL of Armstrong /PROOFEX SM of Fosroc / ZORICOAT XL of SMCC(1 Ltr/10 Sq.Mtr./Each Coat) diluting with water at 1:1 ratio as a primer coat , Next coat with -RAINSEAL of Armstrong / PROOFEX SM of Fosroc / ZORICOAT XL of PMCC mixing with 20 % of Water. (1 Ltr/5 Sq.Mtr/Each Coat) final coat with--RAINSEAL of Armstrong /PROOFEX SM of Fosroc / ZORICOAT XL of PMCC (1 Ltr/2 Sq.Mtr/Each Coat)diluting with 20% of water. * MYK Schomburg MYK Coat WPU-1K(e) M/S by MYK Schomburg,Hyderabad.* Recommended coverage at minimum of 1.8kg per m ² for thickness of 1.1 mm, IWL
	TBSC-Q.VII-7	Polymer bonding agent: - ROOFBOND SBR of Armstrong / NITOBOND SBR of Fosroc / ZORIBOND SBR of PMCC (Coverage : 1 Ltr /5 Sqm / Each Coat), next with - Acrylic Polymer modified reinstatement concrete /mortar ROOFCRETE AR of Armstrong / CEMTOP 400 SD of Fosroc/ZORICRETE CMG of PMCC to finish and polysulphide sealant with ROOFSEALPS of Armstrong/THIOFLEX600 of Fosroc / ZORISEAL PS of PMCC (Coverage : 1 Kg Per 1.8 RMT) finally with - ROOFCOAT of Armstrong / BRUSHBOND of Fosroc /ZORICOAT of PMCC mixing with Cement at 1: 2 ratio. (Coverage : 1 Ltr / 2.5 Sqm /Coat)* MYK Schomburg Seals * COHERE TECH INDIA PVT LTD / M/s DEC Industries Pvt Ltd, IWL
	TBSC-Q.VII-09	Ador Granite Series of MYK Schomburg Coverage: Primer Approx. 0.350 kg/m ² - final Texture Coat Approx. 0.70 to 0.80 kg/m ² , IWL
	TBSC-Q.VII-10	MYK Schomburg Parking System - Coverage: Primer Approx. 0.350 kg/m ² - final Coat Approx. 0.70 to 0.80 kg/m ² , IWL
	TBSC-Q.VII-11	MYK Schomburg Conductive Flooring System - Coverage: Primer Approx. 0.350 kg/m ² - final Coat Approx. 0.70 to 0.80 kg/m ² , IWL
	TBSC-Q.VII-12	MYKSchomburg- Coverage:Approximately0.450kg/m ² intwocoatforaDFTof Approx 200 micron. Primer (10 % dilution with water) is approx. 0.150 to 0.200 kg/m ² Note:Higherconsumptionisexpectedonroughsurfaces. , IWL
	TBSC-Q.VII-14-16	Belmix

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
VIII	TBSCC-Q.VIII-01-11	Silseal, Silflex, Armour, Shalitex
R	SECTION	MISCELLANEOUS ITEMS
I	TBSC-R.I-1 to 81	(a) Sintex, Aquatech for PVC tanks(b) Century wells & Sudarshana for Galvalume sheets (c) Elixir for PEB structures (d) Aluminium Sections - Hindalco, Nalco, Jindal, Geetha series (e) ACP Sheets - Alucopanel, alucobonel, Reynobond, Lennox Durabuid, Istronglegame, Alpolic, Alcomat, Alshine, Viva, Aludecorf)Gypsum plaster-NKV Home Depot, Gyplite, Eurobond, Alex Panels(f) AC Sheets - Charminar Fortune (g) Ant termite Treatment - Bayer (h) MPC (Mineral Polymer Composite) Grills/Jali - Esoste, Carpets - Welspun (i) Polycarbonate sheets - DPI Daylighting (j) Design, fabrication & supply of light weight pre-engineered buildings - DEC Industries PVT LTD, NCL Buildtek, Kirby (k) Artificial Grass - Welspun (l) Hard-Composite tile - Welspun
II	TBSC-R.II-1 to 6	NYLON CARPETS - WELSPUN
III	TBSC-R.III-1 to 4	ACRYLIC SOLID SURFACES - MERINO HANEX SOLID SURFACES
IV	TBSC-R.IV-1 to 5	GARBAGE BINS - SINTEX, OXYGEN, NILKAMAL
V	TBSC-R.V-1 to 6	ANCHOR FASTENERS(Wedge/Expansion/Sleeve) - HILTI
VI	TBSC-R.VI-1 to 6	ANCHOR FASTENERS WITH CHEMICAL BONDING - HILTI
VII	TBSC-R.VII-1 to 4	Passive firestop system - HILTI

PLUMBING ITEMS

INDEX FOR PLUMBING ITEMS OF TELANAGANA BUILDINGS SOR 2023-24

Sl. No	SECTION	ITEM CODE	DESCRIPTION OF THE ITEM	FROM	TO
A	SECTION		S.W.G. PIPES & FITTINGS		
			(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	TBSP-A.I-01-09	SUPPLY & LAYING OF SWG PIPES		
II	SUB-SECTION	TBSP-A.II-01-63	S.W.G. FITTINGS		
III	SUB-SECTION	TBSP-A.III-01-05	LABOUR CHARGES FOR SWG WORKS		
B	SECTION		MANHOLES & INSPECTION CHAMBERS		
I	SUB-SECTION	TBSP-B.I-01-04	MANHOLES		
II	SUB-SECTION	TBSP-B.II-01-13	INSPECTION CHAMBERS		
III	SUB-SECTION	TBSP-B.III-01-01	LABOUR CHARGES FOR IC WORKS		
C	SECTION		CENTRIFUGAL CI PIPES & FITTINGS - IS : 1729		
I	SUB-SECTION	TBSP-C.I-01-06	SUPPLY & LAYING OF CAST IRON PIPES		
II	SUB-SECTION	TBSP-C.II-01-33	SUPPLYING & LAYING OF C.I. FITTINGS		
III	SUB-SECTION	TBSP-C.III-01-08	LABOUR CHARGES FOR CI PIPE WORKS		
D	SECTION		CENTRIFUGAL CI PIPES & FITTINGS - IS : 3989		
I	SUB-SECTION	TBSP-D.I-01-13	SUPPLY OF CENTRIFUGAL CI PIPES		
II	SUB-SECTION	TBSP-D.II-01-95	SUPPLY OF C.I. SPUN FITTINGS		
E	SECTION		VITREOUS CHINAWARE - SANITARY APPLIANCES		
I	SUB-SECTION	TBSP-E.I-01-07	INDIAN WATER CLOSETS		
II	SUB-SECTION	TBSP-E.II-01-06	FLOOR MOUNTED EWC		
III	SUB-SECTION	TBSP-E.III-01-03	WALL MOUNTED EWC		
IV	SUB-SECTION	TBSP-E.IV-01-03	CISTERNS FOR WATER CLOSETS		
V	SUB-SECTION	TBSP-E.V-01-02	PLASTIC SEATS FOR WATER CLOSETS		
VI	SUB-SECTION	TBSP-E.VI-01-16	WASH HAND BASINS		
VII	SUB-SECTION	TBSP-E.VII-01-05	URINALS		
VIII	SUB-SECTION	TBSP-E.VIII-01-12	LABOUR CHARGES FOR SANITARY WARE		
F	SECTION		CP FITTINGS - TAPS, FAUCETS & ACCESSORIES		
I	SUB-SECTION	TBSP-F.I-01-08	TAPS & FAUCETS - BIB TAPS		
II	SUB-SECTION	TBSP-F.II-01-09	TAPS & FAUCETS - PILLAR TAPS		
III	SUB-SECTION	TBSP-F.III-01-07	TAPS & FAUCETS - OTHER TAPS & SPOUTS		
IV	SUB-SECTION	TBSP-F.IV-01-07	STOP & ANGLE VALVES		
V	SUB-SECTION	TBSP-F.V-01-09	COMBINATION FAUCETS		
VI	SUB-SECTION	TBSP-F.VI-01-08	SHOWER ROSES & FITTINGS		
VII	SUB-SECTION	TBSP-F.VII-01-41	MISCELLANEOUS CP FITTINGS		
VIII	SUB-SECTION	TBSP-F.VIII-01-05	LABOUR CHARGES		
G	SECTION		G.I. PIPES & FITTINGS		
I	SUB-SECTION	TBSP-G.I-01-13	G.I. PIPES		
II	SUB-SECTION	TBSP-G.II-01-24	G.I. FITTINGS		
III	SUB-SECTION	TBSP-G.III-01-27	BRONZE (COPPER ALLOY) VALVES		
IV	SUB-SECTION	TBSP-G.IV-01-03	LABOUR CHARGES FOR G.I PLUMBING		
H	SECTION		PVC PIPES & FITTINGS		
I	SUB-SECTION	TBSP-H.I-01-44	PVC PIPES		
II	SUB-SECTION	TBSP-H.II-01-96	PVC FITTINGS		
III	SUB-SECTION	TBSP-H.III-01-10	PVC PLUMBING ACCESSORIES		

Sl. No	SECTION	ITEM CODE	DESCRIPTION OF THE ITEM	FROM	TO
IV	SUB-SECTION	TBSP-H.IV-01-03	LABOUR CHARGES FOR PVC PLUMBING		
J	SECTION		MISCELLANEOUS ITEMS		
I	SUB-SECTION	TBSP-J.I-01-42	MISCELLANEOUS PLUMBING WORK ITEMS		
II	SUB-SECTION	TBSP-J.II-01-17	POLYETHYLENE-ALUMINIUM-POLYETHYLENE COMPOSITE PIPES		
III	SUB-SECTION	TBSP-J.III-01-218	OTHER VARIETIES OF PIPES		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		Note: All the prices of the materials are excluding taxes but including cost of loading, cost of conveyance, unloading & stacking		
A	SECTION	S.W.G. PIPES & FITTINGS		
I	SUB-SECTION	SUPPLY & LAYING OF S.W.G. PIPES		
1	TBSP-A.I-01	Supplying, laying, jointing and testing 101.6 mm SWG SP-1 pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1.5:1 prop. Including excavation of trenches and socket pits in any soil (except rock requiring blasting) up to 1524 mm(5'0") depth and refilling with watering and tamping.	1 RM	594.00
2	TBSP-A.I-02	Supplying, laying, jointing and testing 101.6 mm SWG SP-1 pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1.5:1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) up to 914.4 mm (3'0") depth and refilling with watering and tamping.	1 RM	513.00
3	TBSP-A.I-03	Supplying, laying, jointing and testing 152.4 mm SWG SP-1 pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1.5:1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) up to 1524 mm(5'0") depth and refilling with watering and tamping.	1 RM	858.00
4	TBSP-A.I-04	Supplying, laying, jointing and testing 152.4 mm SWG SP-1 pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1.5:1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) up to 914.4 mm (3'0")) depth and refilling with watering and tamping.	1 RM	763.00
5	TBSP-A.I-05	Providing 152.4 mm CC bed 1:2:4 Prop:using19.05mm gauge graded granite metal chips and cradling 101.6 mm SWG pipeline all round to have 75 mm nominal size thick cover over the sockets.	1 RM	169.00
6	TBSP-A.I-06	Providing 152.4 mm CC bed 1:2:4 Prop: using 19.05 mm gauge graded granite metal chips and cradling 152.4 mm SWG pipeline all round to have 75 mm nominal size thick cover over the sockets.	1 RM	288.00
7	TBSP-A.I-07	Supplying & Laying 101.6 mm SWG channels with cement mortar joints with suitable brick masonry for fixing the channels in position	1 RM	117.00
8	TBSP-A.I-08	Supplying & Laying 152.4 mm SWG channels with cement mortar joints with suitable brick masonry for fixing the channels in position	1 RM	217.00
9	TBSP-A.I-09	Supplying & fixing 150 mm x 100 mm SWG gully traps conforming to ISI 651 & 4127 with C.I Grating & Cost. Brick masonry in CM 1:6 prop. Intermediate chamber and fitted with 304.8 mm x 288.6mm (12"x9") C.I Frame and hinged cover	Each	749.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
II	SUB-SECTION	S.W.G. PIPES (1m or above lengths)& FITTINGS		
10	TBSP-A.II-01	Supply of SWG SP-1 pipe conforming to ISI 651 - 4"dia(101.6mm)	1 RM	224.00
11	TBSP-A.II-02	Supply of SWG SP-1 pipe conforming to ISI 651 - 6"dia(152.4mm)	1 RM	388.00
12	TBSP-A.II-03	Supply of SWG SP-1 pipe conforming to ISI 651 - 8" dia(203.2mm)	1 RM	599.00
13	TBSP-A.II-04	Supply of SWG SP-1 pipe conforming to ISI 651 - 10" dia (254 mm)	1 RM	1,096.00
14	TBSP-A.II-05	Supply of SWG SP-1 pipe conforming to ISI 651 - 12" dia (300 mm)	1 RM	1,579.00
15	TBSP-A.II-06	Supply of SWG SP-1 pipe conforming to ISI 651 - 14" dia (350 mm)	1 RM	2,149.00
16	TBSP-A.II-07	Supply of SWG SP-2 pipe conforming to ISI 651 - 4"dia(101.6mm)	1 RM	278.00
17	TBSP-A.II-08	Supply of SWG SP-2 pipe conforming to ISI 651 - 6"dia(152.4mm)	1 RM	412.00
18	TBSP-A.II-09	Supply of SWG SP-2 pipe conforming to ISI 651 - 8" dia(203.2mm)	1 RM	739.00
19	TBSP-A.II-10	Supply of SWG SP-2 pipe conforming to ISI 651 - 10" dia (254 mm)	1 RM	1,160.00
20	TBSP-A.II-11	Supply of SWG SP-2 pipe conforming to ISI 651 - 12" dia (300 mm)	1 RM	1,784.00
21	TBSP-A.II-12	Supply of SWG SP-2 pipe conforming to ISI 651 - 14" dia (350 mm)	1 RM	2,311.00
22	TBSP-A.II-13	Supply of SWG SP-2 pipe conforming to ISI 651 - 16" dia (400 mm)	1 RM	2,662.00
23	TBSP-A.II-14	Supply of SWG SP-2 pipe conforming to ISI 651 - 18" dia (450 mm)	1 RM	3,398.00
24	TBSP-A.II-15	Supply of SWG SP-3 pipe conforming to ISI 651 - 4"dia(101.6mm)	1 RM	354.00
25	TBSP-A.II-16	Supply of SWG SP-3 pipe conforming to ISI 651 - 6"dia(152.4mm)	1 RM	513.00
26	TBSP-A.II-17	Supply of SWG SP-3 pipe conforming to ISI 651 - 8" dia(203.2mm)	1 RM	907.00
27	TBSP-A.II-18	Supply of SWG SP-3 pipe conforming to ISI 651 - 10" dia (254 mm)	1 RM	1,376.00
28	TBSP-A.II-19	Supply of SWG SP-3 pipe conforming to ISI 651 - 12" dia (300 mm)	1 RM	1,922.00
29	TBSP-A.II-20	Supply of SWG SP-3 pipe conforming to ISI 651 - 14" dia (350 mm)	1 RM	2,440.00
30	TBSP-A.II-21	Supply of SWG SP-2 pipe conforming to ISI 651 - 16" dia (400 mm)	1 RM	2,807.00
31	TBSP-A.II-22	Supply of SWG SP-3 pipe conforming to ISI 651 - 18" dia (450 mm)	1 RM	3,820.00
32	TBSP-A.II-23	Supply of SWG Bends conforming to IS standards - 100 mm dia	Each	114.00
33	TBSP-A.II-24	Supply of SWG Bends conforming to IS standards - 150 mm dia	Each	210.00
34	TBSP-A.II-25	Supply of SWG Bends conforming to IS standards - 200 mm dia	Each	392.00
35	TBSP-A.II-26	Supply of SWG Bends conforming to IS standards - 250 mm dia	Each	793.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
36	TBSP-A.II-27	Supply of SWG Bends conforming to IS standards - 300 mm dia	Each	1,009.00
37	TBSP-A.II-28	Supply of SWG Bends conforming to IS standards - 350 mm dia	Each	1,258.00
38	TBSP-A.II-29	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 100 x 100	Each	218.00
39	TBSP-A.II-30	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 150 x 100	Each	320.00
40	TBSP-A.II-31	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 150 x 150	Each	349.00
41	TBSP-A.II-32	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 200 x 100	Each	495.00
42	TBSP-A.II-33	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 200 x 150	Each	579.00
43	TBSP-A.II-34	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 200 x 200	Each	664.00
44	TBSP-A.II-35	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 250 x 100	Each	781.00
45	TBSP-A.II-36	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 250 x 150	Each	1,028.00
46	TBSP-A.II-37	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 250 x 200	Each	1,273.00
47	TBSP-A.II-38	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 250 x 250	Each	1,524.00
48	TBSP-A.II-39	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 100	Each	1,110.00
49	TBSP-A.II-40	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 150	Each	1,421.00
50	TBSP-A.II-41	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 200	Each	1,742.00
51	TBSP-A.II-42	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 250	Each	2,047.00
52	TBSP-A.II-43	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 300	Each	2,356.00
53	TBSP-A.II-44	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 100	Each	1,385.00
54	TBSP-A.II-45	Supply of SWG Junctions (T's & Y's) conforming to	Each	1,777.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		IS standards with length of barrel 60 cm for - 350 x 150		
55	TBSP-A.II-46	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 200	Each	2,164.00
56	TBSP-A.II-47	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 250	Each	2,552.00
57	TBSP-A.II-48	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 300	Each	2,943.00
58	TBSP-A.II-49	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 350	Each	3,329.00
59	TBSP-A.II-50	Supply of SWG Plugs conforming to IS standards for 100 mm dia	Each	43.00
60	TBSP-A.II-51	Supply of SWG Plugs conforming to IS standards for 150 mm dia	Each	81.00
61	TBSP-A.II-52	Supply of SWG Plugs conforming to IS standards for 200 mm dia	Each	150.00
62	TBSP-A.II-53	Supply of SWG Plugs conforming to IS standards for 250 mm dia	Each	259.00
63	TBSP-A.II-54	Supply of SWG Plugs conforming to IS standards for 300 mm dia	Each	409.00
64	TBSP-A.II-55	Supply of SWG Plugs conforming to IS standards for 350 mm dia	Each	511.00
65	TBSP-A.II-56	Supply of SWG Gully Traps (Round & Square) conforming to IS standards 150 x 100 mm	Each	314.00
66	TBSP-A.II-57	Supply of SWG Saddles conforming to IS standards 150 x 100mm	Each	231.00
67	TBSP-A.II-58	Supply of SWG Saddles conforming to IS standards 200 x 100mm	Each	392.00
68	TBSP-A.II-59	Supply of SWG Saddles conforming to IS standards 250 x 100mm	Each	635.00
69	TBSP-A.II-60	Supply of SWG Rubber Rings, glue & Fixing Charges confirming to IS standards 150mm	Each	48.00
70	TBSP-A.II-61	Supply of SWG Rubber Rings, glue & Fixing Charges confirming to IS standards 200mm	Each	70.00
71	TBSP-A.II-62	Supply of SWG Rubber Rings, glue & Fixing Charges confirming to IS standards 250mm	Each	94.00
72	TBSP-A.II-63	Supply of SWG Rubber Rings, glue & Fixing Charges confirming to IS standards 300mm	Each	155.00
III	SUB-SECTION	LABOUR CHARGES FOR SWG WORKS		
73	TBSP-A.III-01	Labour charges only for laying, jointing and testing SWG pipes of any dia with airtight cement joints including excavation of trenches and socket pits in any soil up to 914.4 mm (3'0") depth (except rock requiring blasting) and refilling with watering and tamping.	1 RM	323.00
74	TBSP-A.III-02	Labour charges only for laying, jointing and testing SWG pipes of any dia with airtight cement joints including excavation of trenches and socket pits in any soil up to 1524 mm (5'-0") depth	1 RM	402.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		(except rock requiring blasting) and refilling with watering and tamping.		
75	TBSP-A.III-03	Labour charges only for laying 101.6 mm SWG channels with cement mortar joints with suitable brick masonry for fixing the channels in position	1 RM	53.00
76	TBSP-A.III-04	Labour charges only for laying 152.4 mm SWG channels with cement mortar joints with suitable brick masonry for fixing the channels in position	1 RM	71.00
77	TBSP-A.III-05	Labour charges only for fixing and laying the SWG Junctions/ Plugs/ Bends of any dia with airtight cement joints as per standard practice	Each	45.00
B	SECTION	MANHOLES&INSPECTIONCHAMBERS-ASPER- IS 4111 : Part 1 :1986		
I	SUB-SECTION	MANHOLES		
78	TBSP-B.I-01	Constructing 904.0 mm (3'0") dia solid block masonry inspection chamber as per IS - 4111: Part-1:1986 with cement mortar (1:6) prop using fly-ash blocks of 225 mm thick from approved source having a minimum crushing strength of 10 N/sq.mm including plastering with cement mortar 1:3 prop; ½" thick both inside and outside fitted with 20" dia RCC manhole covers and frames including excavating pits up to a depth of 904 mm (3'-0") in all sorts of soils (excluding rock) and laying cement concrete (1:4:8) 150 mm thick using 40 mm HBG Metal and P.C.C. 1:2:4 benching and channel 100 mm thick as per Standard specification and including cost and conveyance of all materials like cement, sand, bricks, water etc., to site, cost of seigniorage charges on all materials and all incidental and operational, labour charges like mixing cement mortar, constructing masonry, lift charges, curing etc., complete for finished item of work as per Standard specification.	Each	8,688.00
79	TBSP-B.I-02	Constructing 904.0 mm (3'0") dia solid block masonry inspection chamber as per IS - 4111: Part-1:1986 with cement mortar (1:6) prop using fly-ash blocks of 225 mm thick from approved source having a minimum crushing strength of 10 N/sq.mm including plastering with cement mortar 1:3 prop; ½" thick both inside and outside fitted with 20" dia RCC manhole covers and frames including excavating pits up to a depth of 1524 mm (5'-0") in all sorts of soils (excluding rock) and laying cement concrete (1:4:8) 150 mm thick using 40 mm HBG Metal and P.C.C. 1:2:4 benching and channel 100 mm thick as per Standard specification and including cost and conveyance of all materials like cement, sand, bricks, water etc., to site, cost of seigniorage charges on all materials and all incidental and operational, labour charges like mixing cement mortar, constructing masonry, lift charges, curing	Each	14,087.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		etc., complete for finished item of work as per Standard specification.		
80	TBSP-B.I-03	Constructing 904.0 mm (3'0") dia brick masonry inspection chamber as per IS - 4111: Part-1:1986 with cement mortar (1:6) prop using 2nd Class Clay Bricks of 225 mm thick from approved source having a minimum crushing strength of 5 N/sq.mm including plastering with cement mortar 1:3 prop; ½" thick both inside and outside fitted with 20" dia RCC manhole covers and frames including excavating pits up to a depth of 904 mm (3'-0") in all sorts of soils (excluding rock) and laying cement concrete (1:4:8) 150 mm thick using 40 mm HBG Metal and P.C.C. 1:2:4 benching and channel 100 mm thick as per Standard specification and including cost and conveyance of all materials like cement, sand, bricks, water etc., to site, cost of seigniorage charges on all materials and all incidental and operational, labour charges like mixing cement mortar, constructing masonry, lift charges, curing etc., complete for finished item of work as per Standard specification.	Each	8,766.00
81	TBSP-B.I-04	Constructing 904.0 mm (3'0") dia brick masonry inspection chamber as per IS - 4111: Part-1:1986 with cement mortar (1:6) prop using 2nd Class Clay Bricks of 225 mm thick from approved source having a minimum crushing strength of 5 N/sq.mm including plastering with cement mortar 1:3 prop; ½" thick both inside and outside fitted with 20" dia RCC manhole covers and frames including excavating pits up to a depth of 1524 mm (5'-0") in all sorts of soils (excluding rock) and laying cement concrete (1:4:8) 150 mm thick using 40 mm HBG Metal and P.C.C. 1:2:4 benching and channel 100 mm thick as per Standard specification and including cost and conveyance of all materials like cement, sand, bricks, water etc., to site, cost of seigniorage charges on all materials and all incidental and operational, labour charges like mixing cement mortar, constructing masonry, lift charges, curing etc., complete for finished item of work as per Standard specification.	Each	14,208.00
II	SUB-SECTION	INSPECTION CHAMBERS & COVERS		
82	TBSP-B.II-01	Constructing 914.4 mm x 457.2 mm (3'0"x1'6") brick in CM 1:6 prop. Masonry Inspection chamber up to 914.4 mm (3'0") and fitted with light weight 914.4 mm x 457.2 mm (3'0"x1'6") C.I frame and cover of 40 Kg.	Each	7,644.00
83	TBSP-B.II-02	Constructing 457.2 mm x 457.2 mm (1'6"x1'6") brick in CM 1:6 prop. Masonry. Inspection chamber up to 914.4 mm (3'0") and fitted with light weight 457.2 mm x 457.2 mm (1'6"x1'6") C.I	Each	4,610.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		frame and cover of 20 Kg.		
84	TBSP-B.II-03	Constructing Brick masonry chamber over the gully trap or peet valve and fitted with 304.8 x 228.6 mm size CI frame and hinged cover.	Each	572.00
85	TBSP-B.II-04	Constructing Brick masonry support for G.I pipe with C.M 304.8 x 228.6 x 228.6 mm size including plastering and finishing etc. complete.	Each	94.00
86	TBSP-B.II-05	Supply & fixing RCC cover 22" dia with nominal reinforcement 3 " thick and hooks for lifting	Each	886.00
87	TBSP-B.II-06	Supplying & fixing 304.8 x 228.6 mm CI frame & cover over gully taps	Each	152.00
88	TBSP-B.II-07	Supplying & fixing CI Nahany trap grating	Each	26.00
89	TBSP-B.II-08	Supplying & fixing CI gully trap grating	Each	64.00
90	TBSP-B.II-09	Supplying & fixing 914.4 x 457.2 mm CI manhole frame and cover (light weight) 30 Kgs	Each	2,433.00
91	TBSP-B.II-10	Supplying & fixing 602 x 602 mm CI manhole frame and cover (light weight) 30 Kgs	Each	3,625.00
92	TBSP-B.II-11	Supplying & fixing CI steps for septic tank.	Each	81.00
93	TBSP-B.II-12	Supplying & fixing 50.8 cm dia C.I. Manhole frame & cover for 914.4 mm dia chamber (20 Kgs - Lightweight)	Each	1,566.00
94	TBSP-B.II-13	Supplying & fixing 50.8 cm dia C.I. Manhole frame & cover for 914.4 mm dia chamber (Medium weight) as per IS:1726 - 40 Kgs	Each	3,232.00
III	SUB-SECTION	LABOUR CHARGES FOR IC WORKS		
95	TBSP-B.III-01	Making drainage connection from a drainage line into an existing inspection chamber/ manhole including making a hole into the chambers, placing necessary pipes in the connection and making good the junction in and out of the chambers including cost of necessary cement, sand and aggregate etc.,	Each	167.00
C	SECTION	C.I. PIPES & FITTINGS - AS PER - IS 1729:1979 (Materials shall be procured from the list of approved Brands/ Manufacturers/Suppliers)		
I	SUB-SECTION	SUPPLYING & LAYING OF C.I. PIPES		
96	TBSP-C.I-01	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps, if necessary, with required no. of Bombay nailsetc., complete for 3" dia (75mm nominal size) Single Socket	1 RM	910.00
97	TBSP-C.I-02	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps, if necessary, with required no. of Bombay nails etc.,	1 RM	1,195.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		complete for 4" dia (101.6mm) Single Socket		
98	TBSP-C.I-03	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps, if necessary, with required no. of Bombay nails etc., complete for 6" dia (152.4mm) Single Socket	1 RM	1,910.00
99	TBSP-C.I-04	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps, if necessary, with required no. of Bombaynailsetc.,completefor3"dia(75mmnominal size) Double Socket	1 RM	994.00
100	TBSP-C.I-05	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps, if necessary, with required no. of Bombay nails etc., complete for 4" dia (101.6mm) Double Socket	1 RM	1,327.00
101	TBSP-C.I-06	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps, if necessary, with required no. of Bombay nails etc., complete for 6" dia (152.4mm) Double Socket	1 RM	2,202.00
II	SUB-SECTION	SUPPLYING & LAYING OF C.I. FITTINGS		
102	TBSP-C.II-01	Supplying & fixing CI Plain bends 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 3" dia (75 mm nominal size)	Each	355.00
103	TBSP-C.II-02	Supplying & fixing CI Plain bends 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 4" dia (101.6mm)	Each	450.00
104	TBSP-C.II-03	Supplying & fixing CI Plain bends 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 6" dia (152.4 mm)	Each	748.00
105	TBSP-C.II-04	Supplying & fixing CI Plug (Door) bends 1st quality ISI marked conforming to IS:1729-1979 with	Each	440.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		cement caulked joints and fixing as per site requirements with standard practice for 3" dia (75 mm nominal size)		
106	TBSP-C.II-05	Supplying & fixing CI Plug (Door) bends 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 4" dia (101.6 mm)	Each	545.00
107	TBSP-C.II-06	Supplying & fixing CI Plug (Door) bends 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 6" dia (152.4 mm)	Each	1,189.00
108	TBSP-C.II-07	Supplying and fixing of 75 mm nominal size (3") CIS oil single junction with plug: conforming to IS:1729-1979 with cement caulked joints and fixing	Each	553.00
109	TBSP-C.II-08	Supplying and fixing of 101.6 mm (4") CI soil single junction with plug : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	866.00
110	TBSP-C.II-09	Supplying and fixing of 152.4 mm (6") CI soil single junction with plug : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	2,049.00
111	TBSP-C.II-10	Supplying and fixing of 75 mm nominal size (3") CIS oil plain single junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	466.00
112	TBSP-C.II-11	Supplying and fixing of 101.6 mm (4") CI soil plain single junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	638.00
113	TBSP-C.II-12	Supplying and fixing of 152.4 mm (6") CI soil plain single junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	1,526.00
114	TBSP-C.II-13	Supplying and Fixing of 75 mm nominal size (3") CI soil Double junction with plug: conforming to IS:1729- 1979 with cement caulked joints and fixing	Each	841.00
115	TBSP-C.II-14	Supplying and Fixing of 101.6 mm (4") CI soil Double junction with plug : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	1,023.00
116	TBSP-C.II-15	Supplying and Fixing of 152.4 mm (6") CI soil Double junction with plug : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	2,391.00
117	TBSP-C.II-16	Supplying and Fixing of 75 mm nominal size (3") CI soil plain Double junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	729.00
118	TBSP-C.II-17	Supplying and Fixing of 101.6 mm (4") CI soil plain Double junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	957.00
119	TBSP-C.II-18	Supplying and Fixing of 152.4 mm (6") CI soil plain Double junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	2,238.00
120	TBSP-C.II-19	Supplying and Fixing of 75mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement	Each	357.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		caulked joints and fixing -for 76.20 mm (3") C.I. Pipe		
121	TBSP-C.II-20	Supplying and Fixing of 75mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing -for 101.6 mm (4") C.I. Pipe	Each	499.00
122	TBSP-C.II-21	Supplying and Fixing of 75mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing -for 152.4 mm (6") C.I. Pipe	Each	1,088.00
123	TBSP-C.II-22	Supplying and Fixing of 115 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing - for 76.20 mm (3") C.I. Pipe	Each	426.00
124	TBSP-C.II-23	Supplying and Fixing of 115 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing - for 101.6 mm (4") C.I. Pipe	Each	566.00
125	TBSP-C.II-24	Supplying and Fixing of 115 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing - for 152.4 mm (6") C.I. Pipe	Each	1,115.00
126	TBSP-C.II-25	Supplying and Fixing of 150 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing for 76.20 mm (3") C.I. Pipe	Each	493.00
127	TBSP-C.II-26	Supplying and Fixing of 150 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing for 101.6 mm (4") C.I. Pipe	Each	638.00
128	TBSP-C.II-27	Supplying and Fixing of 150 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing for 152.4 mm (6") C.I. Pipe	Each	1,294.00
129	TBSP-C.II-28	Supplying & fixing CI floor traps 1st quality ISI marked conforming to IS:1729-1979 with C.P. Grating fixing with white cement as per site requirements with standard practice for nominal dia 75 mm (3") and grating size 165 mm dia of weight not less than 5.5 Kgs	Each	647.00
130	TBSP-C.II-29	Supplying & fixing CI floor traps 1st quality ISI marked with C.P. Grating fixing with white cement as per site requirements with standard practice for nominal dia 100 mm (4") and grating size 100 mm dia of weight not less than 6 Kgs	Each	790.00
131	TBSP-C.II-30	Supplying & fixing CI floor traps 1st quality ISI marked conforming to IS:1729-1979 with C.P. Grating fixing with white cement as per site requirements with standard practice for nominal dia 75 mm (3") and grating size 100 mm dia of weight not less than 4.0 Kgs	Each	395.00
132	TBSP-C.II-31	Supplying & fixing CI Collars (double socket) 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site	Each	218.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		requirements with standard practice for 76.20 mm (3") C.I. Pipe		
133	TBSP-C.II-32	Supplying & fixing CI Collars (double socket) Ist quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 101.6 mm (4") C.I. Pipe	Each	273.00
134	TBSP-C.II-33	Supplying & fixing CI Collars (double socket) Ist quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 152.4 mm (6") C.I. Pipe	Each	781.00
III	SUB-SECTION	LABOUR CHARGES FOR CI PIPE WORKS		
135	TBSP-C.III-01	Labour charges only for fixing of C.I. Single/ Double Socket soil pipes of any dia with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar and including fixing of M.S. clamps, if necessary, with required nails	1 RM	315.00
136	TBSP-C.III-02	Labour charges only for fixing CI Plain/ Plug (Door) bends with cement caulked joints and fixing as per site requirements with standard practice	Each	101.00
137	TBSP-C.III-03	Labour charges only fixing CI soil single junctions with cement caulked joints and fixing as per site requirements with standard practice	Each	128.00
138	TBSP-C.III-04	Labour charges only fixing CI soil Double junctions with cement caulked joints and fixing as per site requirements with standard practice	Each	136.00
139	TBSP-C.III-05	Labour charges only fixing CI soil Collars, Bends, Offsets etc., with cement caulked joints and fixing as per site requirements with standard practice	Each	62.00
140	TBSP-C.III-06	Labour charges only for fixing CI Nahany/ Floor traps with C.P. Grating fixing with white cement as per site requirements with standard practice	Each	82.00
141	TBSP-C.III-07	Boxing of Nahany traps in RCC floors	Each	265.00
142	TBSP-C.III-08	Boxing of W.C Traps in R.C.C floors	Each	531.00
D	SECTION	CENTRIFUGALCASTIRONPIPES&FITTINGSASPER IS: 3989 -1984		
I	SUB-SECTION	SUPPLY OF CENTRIFUGAL CI PIPES		
143	TBSP-D.I-01	75 mm dia CI (spun) soils Waste & Ventilating pipe (3 M)	Each	1,762.00
144	TBSP-D.I-02	100 mm dia CI (spun) soils Waste & Ventilating pipe(3M)	Each	2,344.00
145	TBSP-D.I-03	150 mm dia CI (spun) soils Waste & Ventilating pipe(3M)	Each	4,296.00
146	TBSP-D.I-04	75 mm dia CI (spun) soils Waste & Ventilating pipe (3 M) Double socket	Each	1,955.00
147	TBSP-D.I-05	100 mm dia CI (spun) soils Waste & Ventilating pipe(3 M) Double socket	Each	2,638.00
148	TBSP-D.I-06	75 mm dia 9'-0" (2743.2 mm) CI (Spun) pipes	Each	1,584.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
149	TBSP-D.I-07	100 mm dia 9'-0" (2743.2 mm) CI (Spun) pipes	Each	2,115.00
150	TBSP-D.I-08	75 mm dia 8'-0" (2438.4 mm) CI (Spun) pipes	Each	1,418.00
151	TBSP-D.I-09	100 mm dia 8'-0" (2438.4 mm) CI (Spun) pipes	Each	1,884.00
152	TBSP-D.I-10	75 mm dia 6'-0" (1828.8 mm) CI (Spun) pipes	Each	1,154.00
153	TBSP-D.I-11	100 mm dia 6'-0" (1828.8 mm) CI (Spun) pipes	Each	1,504.00
154	TBSP-D.I-12	75 mm dia 6'-0" (1828.8 mm) Double Socket CI (Spun) pipes	Each	1,213.00
155	TBSP-D.I-13	100 mm dia 6'-0" (1828.8 mm) Double Socket CI (Spun) pipes	Each	1,504.00
156	TBSP-D.I-14	Supplying and fixing of Hubless centrifugal C.I. soil pipes ISI marked conforming to IS:15095-2011 of approved make with rubber gasket and GI clamp and fixing as per site requirements with required no. of Bombay nails etc., complete for 50mm dia pipe	RM	750.00
157	TBSP-D.I-15	Supplying and fixing of Hubless centrifugal C.I. soil pipes ISI marked conforming to IS:15095-2011 of approved make with rubber gasket and GI clamp and fixing as per site requirements with required no. of Bombay nails etc., complete for 75mm dia pipe	RM	850.00
158	TBSP-D.I-16	Supplying and fixing of Hubless centrifugal C.I. soil pipes ISI marked conforming to IS:15095-2011 of approved make with rubber gasket and GI clamp and fixing as per site requirements with required no. of Bombay nails etc., complete for 100mm dia pipe	RM	1,040.00
159	TBSP-D.I-17	Supplying and fixing of Hubless centrifugal C.I. soil pipes ISI marked conforming to IS:15095-2011 of approved make with rubber gasket and GI clamp and fixing as per site requirements with required no. of Bombay nails etc., complete for 150mm dia pipe	RM	1,770.00
160	TBSP-D.I-18	Supplying and fixing of Hubless centrifugal C.I. soil pipes ISI marked conforming to IS:15095-2011 of approved make with rubber gasket and GI clamp and fixing as per site requirements with required no. of Bombay nails etc., complete for 200mm dia pipe	RM	2,920.00
161	TBSP-D.I-19	Supplying and fixing of Hubless centrifugal C.I. soil pipes ISI marked conforming to IS:15095-2011 of approved make with rubber gasket and GI clamp and fixing as per site requirements with required no. of Bombay nails etc., complete for 250mm dia pipe	RM	4,070.00
162	TBSP-D.I-20	Supplying and fixing of Hubless centrifugal C.I. soil pipes ISI marked conforming to IS:15095-2011 of approved make with rubber gasket and GI clamp and fixing as per site requirements with required no. of Bombay nails etc., complete for 300mm dia pipe	RM	5,290.00
II	SUB-SECTION	SUPPLY OF C.I. SPUN FITTINGS		
163	TBSP-D.II-01	75 mm dia Cut pipes (pieces) 1 foot (304.8 mm) CI (Spun) fittings	Each	421.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
164	TBSP-D.II-02	100 mm dia Cut pipes (pieces) 1 foot (304.8 mm) CI (Spun) fittings	Each	484.00
165	TBSP-D.II-03	75 mm dia Cut pipes (pieces) 1'.6" (457.2 mm) CI (Spun) fittings	Each	604.00
166	TBSP-D.II-04	100 mm dia Cut pipes (pieces) 1'.6" (457.2 mm) CI (Spun) fittings	Each	694.00
167	TBSP-D.II-05	150 mm dia Cut pipes (pieces) 1'.6" (457.2 mm) CI (Spun) fittings	Each	1,321.00
168	TBSP-D.II-06	75 mm dia Cut pipes (pieces) 2 feet (609.6 mm) CI (Spun) fittings	Each	831.00
169	TBSP-D.II-07	100 mm dia Cut pipes (pieces) 2 feet (609.6 mm) CI (Spun) fittings	Each	918.00
170	TBSP-D.II-08	150 mm dia Cut pipes (pieces) 2 feet (609.6 mm) CI (Spun) fittings	Each	1,654.00
171	TBSP-D.II-09	75 mm dia Cut pipes (pieces) 3 feet (914.4 mm) CI (Spun) fittings	Each	1,274.00
172	TBSP-D.II-10	100 mm dia Cut pipes (pieces) 3 feet (914.4 mm) CI (Spun) fittings	Each	1,718.00
173	TBSP-D.II-11	75 mm dia Cut pipes (pieces) 4 feet (1219.2 mm) CI (Spun) fittings	Each	1,400.00
174	TBSP-D.II-12	100 mm dia Cut pipes (pieces) 4 feet (1219.2 mm) CI (Spun) fittings	Each	2,097.00
175	TBSP-D.II-13	75 mm dia Plain Bend - CI (Spun) fittings	Each	435.00
176	TBSP-D.II-14	100 mm dia Plain Bend - CI (Spun) fittings	Each	510.00
177	TBSP-D.II-15	150 mm dia Plain Bend - CI (Spun) fittings	Each	1,214.00
178	TBSP-D.II-16	75 mm dia Door Bend - CI (Spun) fittings	Each	448.00
179	TBSP-D.II-17	100 mm dia Door Bend - CI (Spun) fittings	Each	581.00
180	TBSP-D.II-18	150 mm dia Door Bend - CI (Spun) fittings	Each	1,328.00
181	TBSP-D.II-19	75 mm dia Plain Bend 45 Degrees - CI (Spun) fittings	Each	435.00
182	TBSP-D.II-20	100 mm dia Plain Bend 45 Degrees - CI (Spun) fittings	Each	510.00
183	TBSP-D.II-21	150 mm dia Plain Bend 45 Degrees - CI (Spun) fittings	Each	1,214.00
184	TBSP-D.II-22	75 mm dia Door Bend 45 Degrees - CI (Spun) fittings	Each	448.00
185	TBSP-D.II-23	100 mm dia Door Bend 45 Degrees - CI (Spun) fittings	Each	581.00
186	TBSP-D.II-24	150 mm dia Door Bend 45 Degrees - CI (Spun) fittings	Each	1,328.00
187	TBSP-D.II-25	Horn Bend Plain 101.6 x 50 mm nominal size (4" x 2") 100 mm dia - CI (Spun) fittings	Each	882.00
188	TBSP-D.II-26	Horn Bend door 101.6 x 50 mm nominal size (4" x 2") 100 mm dia - CI (Spun) fittings	Each	1,028.00
189	TBSP-D.II-27	75 mm dia Heel Rest Bend - CI (Spun) fittings	Each	462.00
190	TBSP-D.II-28	100 mm dia Heel Rest Bend - CI (Spun) fittings	Each	590.00
191	TBSP-D.II-29	150 mm dia Heel Rest Bend - CI (Spun) fittings	Each	1,251.00
192	TBSP-D.II-30	75 mm dia Single Branch Plain "T" - CI (Spun) fittings	Each	581.00
193	TBSP-D.II-31	100 mm dia Single Branch Plain "T" - CI (Spun) fittings	Each	783.00
194	TBSP-D.II-32	150 mm dia Single Branch Plain "T" - CI (Spun) fittings	Each	1,614.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
195	TBSP-D.II-33	75 mm dia Single Branch Door "T" - CI (Spun) fittings	Each	684.00
196	TBSP-D.II-34	100 mm dia Single Branch Door "T" - CI (Spun) fittings	Each	909.00
197	TBSP-D.II-35	150 mm dia Single Branch Door "T" - CI (Spun) fittings	Each	1,705.00
198	TBSP-D.II-36	75 mm dia Single Branch plain "Y" - CI (Spun) fittings	Each	684.00
199	TBSP-D.II-37	100 mm dia Single Branch plain "Y" - CI (Spun) fittings	Each	909.00
200	TBSP-D.II-38	150 mm dia Single Branch plain "Y" - CI (Spun) fittings	Each	2,000.00
201	TBSP-D.II-39	75 mm dia Single Branch Door "Y" - CI (Spun) fittings	Each	751.00
202	TBSP-D.II-40	100 mm dia Single Branch Door "Y" - CI (Spun) fittings	Each	1,003.00
203	TBSP-D.II-41	150 mm dia Single Branch Door "Y" - CI (Spun) fittings	Each	2,156.00
204	TBSP-D.II-42	75 mm dia Double Branch Plain "T" - CI (Spun) fittings	Each	793.00
205	TBSP-D.II-43	100 mm dia Double Branch Plain "T" - CI (Spun) fittings	Each	1,067.00
206	TBSP-D.II-44	75 mm dia Double Branch Door "T" - CI (Spun) fittings	Each	884.00
207	TBSP-D.II-45	100 mm dia Double Branch Door "T" - CI (Spun) fittings	Each	1,112.00
208	TBSP-D.II-46	75 mm dia Double Branch Plain "Y" - CI (Spun) fittings	Each	884.00
209	TBSP-D.II-47	100 mm dia Double Branch Plain "Y" - CI (Spun) fittings	Each	1,112.00
210	TBSP-D.II-48	75 mm dia Double Branch Door "Y" - CI (Spun) fittings	Each	933.00
211	TBSP-D.II-49	100 mm dia Double Branch Door "Y" - CI (Spun) fittings	Each	1,208.00
212	TBSP-D.II-50	75 mm dia Shoe Bend - CI (Spun) fittings	Each	547.00
213	TBSP-D.II-51	100 mm dia Shoe Bend - CI (Spun) fittings	Each	640.00
214	TBSP-D.II-52	150 mm dia Shoe Bend - CI (Spun) fittings	Each	1,298.00
215	TBSP-D.II-53	75 mm dia Collar - CI (Spun) fittings	Each	376.00
216	TBSP-D.II-54	100 mm dia Collar - CI (Spun) fittings	Each	455.00
217	TBSP-D.II-55	150 mm dia Collar - CI (Spun) fittings	Each	933.00
218	TBSP-D.II-56	75 mm dia Cowl - CI (Spun) fittings	Each	331.00
219	TBSP-D.II-57	100 mm dia Cowl - CI (Spun) fittings	Each	376.00
220	TBSP-D.II-58	150 mm dia Cowl - CI (Spun) fittings	Each	840.00
221	TBSP-D.II-59	75 mm dia Offset 3" (75 mm nominal size) projection - CI (Spun) fittings	Each	480.00
222	TBSP-D.II-60	100 mm dia Offset 3" (75 mm nominal size) projection - CI (Spun) fittings	Each	581.00
223	TBSP-D.II-61	150 mm dia Offset 3" (75 mm nominal size) projection - CI (Spun) fittings	Each	1,172.00
224	TBSP-D.II-62	75 mm dia Offset 6" (152.4mm) projection - CI (Spun) fittings	Each	523.00
225	TBSP-D.II-63	100 mm dia Offset 6" (152.4mm) projection - CI (Spun) fittings	Each	684.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
226	TBSP-D.II-64	150 mm dia Offset 6" (152.4mm) projection - CI (Spun) fittings	Each	1,364.00
227	TBSP-D.II-65	75 mm dia Long Door Bend - CI (Spun) fittings	Each	1,100.00
228	TBSP-D.II-66	100 mm dia Long Door Bend - CI (Spun) fittings	Each	1,183.00
229	TBSP-D.II-67	75 mm dia Hand Hole pipe (Inspection pipe)	Each	633.00
230	TBSP-D.II-68	100 mm dia Hand Hole pipe (Inspection pipe)	Each	861.00
231	TBSP-D.II-69	150 mm dia Hand Hole pipe (Inspection pipe)	Each	1,147.00
232	TBSP-D.II-70	75 mm dia P Traps - CI (Spun) fittings	Each	684.00
233	TBSP-D.II-71	100 mm dia P Traps - CI (Spun) fittings	Each	938.00
234	TBSP-D.II-72	4" x 3" (101.6 mm x 76.2mm) P. Traps 100 mm dia - CI (Spun) fittings	Each	1,075.00
235	TBSP-D.II-73	4" x 3" (101.6 mm x 76.2mm) Vent Traps 100 mm dia - CI (Spun) fittings	Each	1,075.00
236	TBSP-D.II-74	4" x 3" (101.6 mm x 76.2mm) Reducer 75 mm dia - CI (Spun) fittings	Each	669.00
237	TBSP-D.II-75	6" x 4" (152.4 mm x101.6 mm) Reducer 75 mm dia - CI (Spun) fittings	Each	914.00
238	TBSP-D.II-76	3" x 2" (75 mm nominal size x 50 mm nominal size) plain T 75 mm dia - CI (Spun) fittings	Each	572.00
239	TBSP-D.II-77	3" x 2" (75 mm nominal size x 50 mm nominal size) Door T 75 mm dia - CI (Spun) fittings	Each	891.00
240	TBSP-D.II-78	3" x 2" (75 mm nominal size x 50 mm nominal size) Plain Y 75 mm dia - CI (Spun) fittings	Each	891.00
241	TBSP-D.II-79	3" x 2" (75 mm nominal size x 50 mm nominal size) Door Y 75 mm dia - CI (Spun) fittings	Each	891.00
242	TBSP-D.II-80	4" x 3" (101.6 mm x 76.2mm) Plain T 75 mm dia - CI (Spun) fittings	Each	891.00
243	TBSP-D.II-81	4" x 3" (101.6 mm x 76.2mm) Door T 75 mm dia - CI (Spun) fittings	Each	943.00
244	TBSP-D.II-82	4" x 3" (101.6 mm x 76.2mm) Plain Y 75 mm dia - CI (Spun) fittings	Each	943.00
245	TBSP-D.II-83	4" x 3" (101.6 mm x 76.2mm) Door Y 75 mm dia - CI (Spun) fittings	Each	1,007.00
246	TBSP-D.II-84	6" x 4" (152.4 mm x101.6 mm) Plain T 75 mm dia - CI (Spun) fittings	Each	1,318.00
247	TBSP-D.II-85	6" x 4" (152.4 mm x101.6 mm) Door T 75 mm dia - CI (Spun) fittings	Each	1,428.00
248	TBSP-D.II-86	6" x 4" (152.4 mm x101.6 mm) Plain Y 75 mm dia - CI (Spun) fittings	Each	1,511.00
249	TBSP-D.II-87	6" x 4" (152.4 mm x101.6 mm) Door Y 75 mm dia - CI (Spun) fittings	Each	1,845.00
250	TBSP-D.II-88	75 mm dia Plain " T" 27 " (685.8 mm) Special Types of Long Fittings	Each	1,913.00
251	TBSP-D.II-89	100 mm dia - Plain " T" 27 " (685.8 mm) Special Types of Long CI (Spun) fittings	Each	2,686.00
252	TBSP-D.II-90	75 mm dia Door "T" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	2,135.00
253	TBSP-D.II-91	100mm dia Door "T" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	2,951.00
254	TBSP-D.II-92	75 mm dia Plain " Y" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	2,135.00
255	TBSP-D.II-93	100mm dia Plain " Y" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	2,951.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
256	TBSP-D.II-94	75 mm dia Door " Y" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	2,381.00
257	TBSP-D.II-95	100mm dia Door " Y" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	3,240.00
E	SECTION	VITREOUS CHINAWARE - SANITARY APPLIANCES as per IS:2556 - 2004 (Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)		
I	SUB-SECTION	INDIAN WATER CLOSETS		
258	TBSP-E.I-01	Supplying & fixing approved make Indian pattern white glazed W.C 1st quality ISI marked conforming to IS:2556-Part-3-2004 with "P" or "S" trap: 580 mm Long	Each	1,628.00
259	TBSP-E.I-02	Supplying & fixing approved make Indian pattern white glazed W.C 1st quality ISI marked conforming to IS:2556-Part-3-2004 with "P" or "S" trap: 630 mm Long	Each	1,628.00
260	TBSP-E.I-03	Supplying & fixing approved make Orissa Pan white glazed W.C 1st quality ISI marked conforming to IS:2556-Part-3-2004 with "P" or "S" trap: 580 mm x 440 mm	Each	2,178.00
261	TBSP-E.I-04	Supplying & fixing approved make Orissa Pan white glazed W.C 1st quality ISI marked conforming to IS:2556-Part-3-2004 with "P" or "S" trap: 630 mm x 450 mm	Each	2,178.00
262	TBSP-E.I-05	Supplying & fixing approved make porcelain footrest for squatting I.W.C.(Rectangular pair)of sizes 250mm x 125 mm x 15 mm thick each footrest 1st quality ISI marked conforming to IS:2556-Part-10:1974	Pair	259.00
263	TBSP-E.I-06	Providing Brick masonry seat for Orissa pan/ Indian W.C. using traditional common burnt clay bricks as per standard practice	Each	333.00
264	TBSP-E.I-07	Providing Cement Concrete Squatting plate for Orissa pan/ Indian W.C. in P.C.C. 1:2:4 as per standard practice	Each	100.00
II	SUB-SECTION	FLOOR MOUNTED EWC		
265	TBSP-E.II-01	Supplying and fixing approved make wash down European Water Closet of 1st quality conforming to IS:2556-Part-2-2004 of white glazed with 'P' trap	Each	1,941.00
266	TBSP-E.II-02	Supplying and fixing approved make wash down European Water Closet of 1st quality conforming to IS:2556-Part-2-2004 of white glazed with 'S' trap	Each	2,081.00
267	TBSP-E.II-03	Supply, Installation and commissioning approved make floor mounted Anglo Indian wash down EWC conforming to IS:2556 (Part 8)-2004 suit with 'P' or 'S' trap with dual flush porcelain cistern fixed on wash down EWC with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap & 15 mm angle stop cock & 450 mm long PVC inter connection pipe wall flanges all of approved make etc.	Each	6,168.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		complete for finished item of work in all respects: White Colour		
268	TBSP-E.II-04	Supply, Installation and commissioning approved make floor mounted Close Coupled wash down EWC conforming to IS:2556 (Part 8)-2004 suit with 'P' ' trap with dual flush porcelain cistern fixed on wash down EWC with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap & 15 mm angle stop cock & 450 mm long PVC inter connection pipe wall flanges all of approved make etc. complete for finished item of work in all respects: White Colour	Each	11,945.00
269	TBSP-E.II-05	Supply, Installation and commissioning approved make floor mounted Close Coupled wash down EWC conforming to IS:2556 (Part 8)-2004 suit with 'P' ' trap with dual flush porcelain cistern fixed on wash down EWC with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap & 15 mm angle stop cock & 450 mm long PVC inter connection pipe wall flanges all of approved make etc. complete for finished item of work in all respects: Coloured-Grade-I/Grade-II	Each	15,014.00
270	TBSP-E.II-06	Supply, Installation and commissioning approved make floor mounted Close Coupled wash down EWC conforming to IS:2556 (Part 8)-2004 with 'P' or 'S' trap with dual flush porcelain cistern fixed on wash down EWC with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap & 15 mm angle stop cock & 450 mm long PVC inter connection pipe wall flanges all of approved make etc. complete for finished item of work in all respects: Special Colour-Grade-III	Each	17,272.00
III	SUB-SECTION	WALL MOUNTED EWC		
271	TBSP-E.III-01	Supply, Installation and commissioning approved make wash down wall mounted EWC conforming to IS:2556 (Part 16)-2002 with 'P' or 'S' trap with concealed flush cistern fixed in wall with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap all approved make etc. complete for finished item of work in all respects: White colour	Each	11,307.00
272	TBSP-E.III-02	Supply, Installation and commissioning approved make wash down wall mounted EWC conforming to IS:2556 (Part 16)-2002 with 'P' or 'S' trap with concealed flush cistern fixed in wall with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap all approved make etc. complete for finished item of work in all respects: Coloured Grade-I&II	Each	15,544.00
273	TBSP-E.III-03	Supply, Installation and commissioning approved make wash down wall mounted EWC conforming	Each	16,184.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		to IS:2556 (Part 16)-2002 with 'P' or 'S' trap with concealed flush cistern fixed in wall with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap all approved make etc. complete for finished item of work in all respects: Special Coloured Grade-III		
IV	SUB-SECTION	CISTERNS FOR WATER CLOSETS		
274	TBSP-E.IV-01	Supplying & Fixing low-down porcelain flushing tank with lid 10 Lit Capacity with internal components	Each	3,137.00
275	TBSP-E.IV-02	Supplying & Fixing internal cistern fittings for dual flush cisterns	Each	1,743.00
276	TBSP-E.IV-03	Supplying & Fixing ultra slim concealed flushing cistern of HDPE body and of size 460 x 450 x 80 mm with internal component for wall mounted Wash down WC	Each	4,819.00
V	SUB-SECTION	PLASTIC SEATS FOR WATER CLOSETS		
277	TBSP-E.V-01	Supplying and Fixing best Indian make plastic seat and lid for European water closets with rubber or plastic Buffers as per IS2548-1996	Each	1,280.00
278	TBSP-E.V-02	Supplying and Fixing best Indian make soft plastic closing seat and lid for European water closets with rubber or plastic Buffers as per IS 2548-1996	Each	1,706.00
VI	SUB-SECTION	WASH HAND BASINS		
279	TBSP-E.VI-01	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 660 x 460 mm - Single C.P. Pillar cock	Each	3,955.00
280	TBSP-E.VI-02	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 630 x 450 mm - Single C.P. Pillar cock	Each	2,893.00
281	TBSP-E.VI-03	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 630	Each	3,012.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		x 450 mm - Double C.P. Pillar cock		
282	TBSP-E.VI-04	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 550 x 400 mm - Single C.P. Pillar cock	Each	2,304.00
283	TBSP-E.VI-05	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 550 x 400 mm - Double C.P. Pillar cock	Each	2,682.00
284	TBSP-E.VI-06	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 450 x 300 mm - Single C.P. Pillar cock	Each	1,508.00
285	TBSP-E.VI-07	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 450 x 300 mm - Double C.P. Pillar cock	Each	2,009.00
286	TBSP-E.VI-08	Supplying & Fixing Indian make below counter Wash Hand Basin 1st quality with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block with single CP pillar cock	Each	4,219.00
287	TBSP-E.VI-09	Supplying & Fixing Indian make white glazed vitreous China porcelain sink conforming to IS:2556-Part-5- 1994 on cantilever brackets with waste fittings like rubber plug, chain, 32 mm	Each	4,939.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979: 600 x 400 x250		
288	TBSP-E.VI-10	Supplying & Fixing Indian make white glazed vitreous China porcelain sink conforming to IS:2556-Part-5- 1994 on cantilever brackets with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979: 750 x 450 x250	Each	5,558.00
289	TBSP-E.VI-11	Supplying & fixing oval shape basin white (520x410mm) parry or equivalent	Each	2,721.00
290	TBSP-E.VI-12	Supplying and Fixing Pedestal for Wash Hand Basin	Each	1,588.00
291	TBSP-E.VI-13	Supplying & fixing stainless steel sink size 36" x 18" (914.4x457.2mm) 1 mm thick with accessories	Each	7,541.00
292	TBSP-E.VI-14	Supplying & fixing SINGLE BOWL stainless steel sink size 24"x18"x8 " (609.6 x 457.2 x 203.2mm) 1 mm thick with accessories	Each	5,561.00
293	TBSP-E.VI-15	Supplying & fixing stainless steel sink size 20" x18" x 8 " (508x457.2x203.2mm) 1 mm thick with accessories	Each	5,048.00
294	TBSP-E.VI-16	S & F 609.6 x 457.2 x 254 mm RCC terrazzo finished sink (or constructed at site with 50.8mm thick) brass plug and chain including CI cantilever brackets	Each	789.00
VII	SUB-SECTION	URINALS		
295	TBSP-E.VII-01	Supplying & Fixing white glazed flat back Bowl urinals of size 440 mm x 265 mm x 315 mm with internal flushing rim fixed with screws complete Indian make conforming to IS:2556-1995	Each	1,088.00
296	TBSP-E.VII-02	Supplying & Fixing white glazed flat back half stall urinals 1st quality conforming to IS:2556-1995 with standard C.P. Spreader fixed with screws complete Indian make : 410 x 265 x 305 mm	Each	3,471.00
297	TBSP-E.VII-03	Supplying & Fixing white glazed flat back half stall urinals 1st quality conforming to IS:2556-1995 with standard C.P. Spreader fixed with screws complete Indian make : 590 x 375 x 390 mm	Each	3,947.00
298	TBSP-E.VII-04	Supplying & fixing 4 " x 24 " (101.6x609.6mm) white glazed porcelain channel fixed in brick masonry white cement pointing.	Each	543.00
299	TBSP-E.VII-05	Supplying and Fixing Odourless, Waterless Urinal Commode, of size 600mm x 340mmx320 mm/470 mm x 356mm x 305mm made of Specially designed curvature profile and the non-stick ceramic Coating help to ensure maximum slippery index. All the urine or water which is poured, slip into cartridge and does not stick to urinal basin. The Cartridge works on a Uni-directional system i.e., It gets opened only For the amount of urine passed through and gets closed immediately. This ensures bad odour behind trap in the drainage system can't pass back into the lavatory/ restroom. Cartridge has been sealed for high durability With no leakage	Each	22,489.00
VIII	SUB-SECTION	LABOUR CHARGES FOR SANITARY WARE		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
300	TBSP-E.VIII-01	Labour charges only for fixing Indian pattern W.C with "P" or "S" trap	Each	419.00
301	TBSP-E.VIII-02	Labour charges only Fixing Orissa pan W.C with "P" or "S" trap	Each	522.00
302	TBSP-E.VIII-03	Labour charges only for fixing porcelain footrest for squatting I.W.C. (Rectangular pair)	Pair	97.00
303	TBSP-E.VIII-04	Labour charges only for fixing low-down porcelain flushing tank with internal components	Each	730.00
304	TBSP-E.VIII-05	Labour charges only for fixing internal cistern fittings of any flushing tank	Each	363.00
305	TBSP-E.VIII-06	Labour charges only for fixing European Water Closet with 'P' or 'S' trap as per standard practice	Each	366.00
306	TBSP-E.VIII-07	Labour charges only for fixing plastic seat and lid for European water closet	Each	108.00
307	TBSP-E.VIII-08	Labour charges only for fixing Indian make Flat Back Wash Hand Basin with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting Pillar Taps complete with standard CI brackets including wooden block	Each	522.00
308	TBSP-E.VIII-09	Labour charges only for fixing pedestal for wash hand basin	Each	191.00
309	TBSP-E.VIII-10	Labour charges only for fixing bottle trap to the wash hand basin	Each	74.00
310	TBSP-E.VIII-11	Labour charges only Fixing flat back Bowl/ Half stall urinals with fixing C.P. Spreader and screws complete	Each	209.00
311	TBSP-E.VIII-12	Labour charges only for fixing Vitreous China porcelain sinks with waste fittings, rubber plug, chain, cantilever brackets etc.	Each	522.00
F	SECTION	CPFITTINGS (Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)		
I	SUB-SECTION	TAPS & FAUCETS - BIB TAPS		
312	TBSP-F.I-01	S&F of 15 mm brass body CP finish bib tap of not less than 300 grams weight screw type (full turn) with internal / external threaded connection conforming to IS 8931	Each	271.00
313	TBSP-F.I-02	S&F of 15 mm brass body CP finish bib tap of not less than 300 grams weight with quarter turn spindle with either internal or external threaded connection conforming to IS 8931	Each	657.00
314	TBSP-F.I-03	S&F of 15 mm brass body premium variety Chromium Plated finish bib tap with wall flange of not less than 500 grams weight with quarter turn spindle with either internal or external threaded connection conforming to IS 8931 and with 10 years warranty	Each	934.00
315	TBSP-F.I-04	S&F of 15 mm brass body premium variety Chromium Plated finish bib tap angular shape with wall flange of not less than 500 grams weight with quarter turn spindle with either internal or external threaded connection conforming to IS 8931 and with 10 years warranty	Each	1,315.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
316	TBSP-F.I-05	S&F of 15 mm brass body CP finish two-way bib tap of not less than 400 grams weight with quarter turn spindle internal/ external threaded connection conforming to IS 8931	Each	940.00
317	TBSP-F.I-06	S&F of 15 mm brass body premium variety Chromium Plated finish two-way bib tap with flange of not less than 500 grams weight with quarter turn spindle internal/ external threaded connection conforming to IS 8931 and with 10 years warranty	Each	1,207.00
318	TBSP-F.I-07	S&F of Chromium plated finish brass body quarter turn Bibcock cum Health Faucet with 1m long tube and wall hook with 10 years warranty	Each	3,524.00
319	TBSP-F.I-08	S&F of 15 mm brass body CP finish long body bib tap of not less than 400 grams weight with quarter turn spindle internal / external threaded connection conforming to IS 8931	Each	839.00
II	SUB-SECTION	TAPS & FAUCETS - PILLAR TAPS		
320	TBSP-F.II-01	S&F of 15 mm brass body CP finish pillar tap of not less than 300 grams weight screw type (full turn) conforming to IS 8931	Each	688.00
321	TBSP-F.II-02	S&F of 15 mm brass body CP finish pillar tap of not less than 500 grams weight quarter turn spindle conforming to IS 8931	Each	889.00
322	TBSP-F.II-03	S&F of 15 mm brass body Premium variety Chromium plated finish pillar cock with aerator of not less than 500 grams weight quarter turn spindle conforming to IS 8931 and with a warranty of 10 years	Each	907.00
323	TBSP-F.II-04	S&F of 15 mm brass body Premium variety Chromium plated finish long neck pillar cock with aerator of not less than 500 grams weight quarter turn spindle conforming to IS 8931 and with a warranty of 10 years	Each	1,207.00
324	TBSP-F.II-05	S&F of 15 mm brass body Premium variety Chromium plated finish single lever pillar cock with aerator of not less than 500 grams weight quarter turn spindle conforming to IS 8931 and with a warranty of 10 years	Each	1,315.00
325	TBSP-F.II-06	S&F premium make Sensotronic sensor faucet for wash basin, and with 10 years warranty	Each	15,923.00
326	TBSP-F.II-07	S&F premium make Sensotronic concealed type flushing valve for urinal complete set with installation box with control cock, and with 10 years warranty	Each	15,923.00
327	TBSP-F.II-08	S&F premium make Auto closing system pillar cockforwashbasin,andwith10years warranty	Each	2,640.00
328	TBSP-F.II-09	S&F premium make Auto Closing system Bibcock, and with 10 years warranty	Each	2,769.00
III	SUB-SECTION	TAPS & FAUCETS - OTHER TAPS & SPOUTS		
329	TBSP-F.III-01	S&F of 15 mm brass body CP finish self-closing tap push type conforming to IS 1711	Each	298.00
330	TBSP-F.III-02	S&F of 15 mm brass body CP finish self-closing tap lift type conforming to IS1711	Each	261.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
331	TBSP-F.III-03	S&F of 15 mm brass body Premium variety Chromium plated finish Swan neck tap with right/left hand operating knob with aerator of not less than 500 grams weight quarter turn spindle conforming to IS 8931 and with a warranty of 10 years	Each	1,756.00
332	TBSP-F.III-04	S&F of 15 mm brass body CP finish wall mounted sink spout with connecting legs & wall flanges swinging nozzle conforming to IS 8931 and with a warranty of 10 years	Each	2,522.00
333	TBSP-F.III-05	S&F of 15 mm brass body CP finish wall mounted sink spout with connecting legs & wall flanges fixed nozzle conforming to IS 8931 and with a warranty of 10years	Each	1,535.00
334	TBSP-F.III-06	S&F of 15 mm bathtub spout minimum 180 mm projection with diverter system	Each	1,429.00
335	TBSP-F.III-07	S&F of 15 mm bathtub spout with tip ton minimum 180 mm projection with diverter system	Each	1,925.00
IV	SUB-SECTION	STOP & ANGLE VALVES		
336	TBSP-F.IV-01	S & F 15 mm nominal size CP finish brass stop valve screw type with internal /external threaded conforming to IS 8931	Each	255.00
337	TBSP-F.IV-02	S & F 15 mm nominal size brass concealed stop valve screw type with internal /external threaded conforming to IS 8931	Each	273.00
338	TBSP-F.IV-03	S & F 15 mm nominal size CP finish brass angled stop valve screw type with internal /external threaded conforming to IS 8931	Each	261.00
339	TBSP-F.IV-04	S&F of 15 mm CP finish brass stop valve of not less than 400 grams weight quarter turn spindle with internal threaded conforming to IS 8931	Each	861.00
340	TBSP-F.IV-05	S&F of 15 mm CP finish brass concealed stop valve of not less than 400 grams weight quarter turn spindle conforming to IS 8931	Each	668.00
341	TBSP-F.IV-06	S&F of 15 mm CP finish brass concealed stop valve of not less than 400 grams weight with adjustable wall flange and quarter turn spindle conforming to IS 8931 and with 10 years warranty	Each	1,043.00
342	TBSP-F.IV-07	S&F of 15 mm brass angle stop valve of quarter turn spindle type of not less than 400 grams weight with internal threaded conforming to IS 8931	Each	669.00
V	SUB-SECTION	COMBINATION FAUCETS		
343	TBSP-F.V-01	S&F of 15 mm CP finish brass body wall mixer with hand shower with centre distance 150 mm conforming to IS 8931	Each	3,055.00
344	TBSP-F.V-02	S&F of 15 mm CP finish brass body wall mixer conforming to IS 8931 with centre distance 150 mm conforming to IS 8931	Each	2,354.00
345	TBSP-F.V-03	S&F of 15 mm premium variety Chromium plated finish brass body wall mixer with hand shower with a provision for overhead shower with 115 mm long bend pipe on upper side, connecting legs & wall flanges conforming to IS 8931 with 10 years	Each	4,003.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		warranty		
346	TBSP-F.V-04	S&F of 15 mm brass forged body concealed diverter with regular flow	Each	3,705.00
347	TBSP-F.V-05	S&F of 15 mm brass forged body concealed diverter with high flow	Each	4,805.00
348	TBSP-F.V-06	S&F of 15 mm brass forged body concealed diverter forged body with 3 way in let	Each	4,608.00
349	TBSP-F.V-07	S&F of 15 mm central hole Chromium plated finish brass body basin mixer 450 mm long pipe for hot & cold water mixing conforming to IS 8931 and with 10 years warranty	Each	3,007.00
350	TBSP-F.V-08	S&F of 15 mm central hole Chromium plated finish brass body single lever basin mixer 450 mm long breaded pipe for hot & cold water mixing conforming to IS 8931 and with 10 years warranty	Each	3,509.00
351	TBSP-F.V-09	S&F of 15 mm central hole Chromium plated finish brass body sink mixer with swinging cascade round shape spout (wall/ table mounted model) with connecting legs & wall flanges conforming to IS 8931 and with 10 years warranty	Each	3,069.00
VI	SUB-SECTION	SHOWER ROSES & FITTINGS		
352	TBSP-F.VI-01	S&F 15 mm nominal size 152.0 mm CP finish iron body shower rose	Each	208.00
353	TBSP-F.VI-02	S&F 15 mm nominal size 137.0 mm CP finish iron body shower rose	Each	198.00
354	TBSP-F.VI-03	S&F 15 mm nominal size 101.6 mm CP finish iron body shower rose	Each	189.00
355	TBSP-F.VI-04	S&F 15 mm nominal size CP finish shower rose 200 mm dia with CP finish flexible pipe	Each	634.00
356	TBSP-F.VI-05	S&F 15 mm nominal size CP finish brass overhead shower arm of 450 mm long with 90-degree bend & wall flange suitable for rain shower	Each	1,351.00
357	TBSP-F.VI-06	S&F 15 mm nominal size Chromium plated finish brass overhead shower arm of 450 mm long with 90-degree bend & wall flange suitable for rain shower and with 10 years warranty	Each	1,646.00
358	TBSP-F.VI-07	S&F 15 mm nominal size overhead 5 flow round massage shower rose	Each	959.00
359	TBSP-F.VI-08	S&F 15 mm nominal size 5 flow hand shower with rabbit cleaning system and 1.5 m long flexible hose and wall hook.	Each	1,973.00
VII	SUB-SECTION	MISCELLANEOUS CP FITTINGS		
360	TBSP-F.VII-01	S&F of 15 mm Stainless steel flexible hose 1.0 m long for hand shower / health faucet with brass nuts	Each	281.00
361	TBSP-F.VII-02	S&F of 15 mm CP finish brass body health faucet gun	Each	233.00
362	TBSP-F.VII-03	S&F CP finish brass bottle trap 250 mm long with wall connection pipe & wall Flange	Each	1,043.00
363	TBSP-F.VII-04	S&F CP finish brass bottle trap 190mm long with wall connection pipe & wall Flange	Each	1,049.00
364	TBSP-F.VII-05	S&F PVC bottle trap with wall connection pipe	Each	158.00
365	TBSP-F.VII-06	S&F CP finish brass body 32 mm dia nominal size	Each	257.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		waste coupling with half/full thread & brass check nut conforming to IS 2963: 1979		
366	TBSP-F.VII-07	S&F CP finish brass body 32 mm dia nominal size waste coupling with half/ full thread & brass body check nut and chain & plug conforming to IS 2963: 1979	Each	281.00
367	TBSP-F.VII-08	S&F CP finish brass body 32 mm dia nominal size waste coupling doom type with half/ full thread & brass body check nut conforming to IS 2963: 1979	Each	331.00
368	TBSP-F.VII-09	S&F brass body CP spreader for urinals	Each	173.00
369	TBSP-F.VII-10	S&F CP finish steel towel rod of 600 mm long and 20 mm dia with brackets	Each	437.00
370	TBSP-F.VII-11	S&F CP finish brass towel rod 600 mm long and 20 mm dia with brackets	Each	1,176.00
371	TBSP-F.VII-12	S&F of Towel rod 24 " premium make powder coated stainless steel body with 10 years warranty	Each	3,553.00
372	TBSP-F.VII-13	S&F CP finish brass wall mounted towel ring	Each	677.00
373	TBSP-F.VII-14	S&F of Chromium plated finish stainless steel body Towel Ring with 10 years warranty	Each	1,100.00
374	TBSP-F.VII-15	S&F of powder coated brass body finish Towel ring premium make with 10 years warranty	Each	2,273.00
375	TBSP-F.VII-16	S&F of Chromium plated finish stainless steel body towel rail 24" with 10 years warranty	Each	1,778.00
376	TBSP-F.VII-17	S&F powder coated stainless steel body wall mounted towel rack 600 mm long	Each	3,729.00
377	TBSP-F.VII-18	S&F CP finish brass metal body single coat hook	Each	446.00
378	TBSP-F.VII-19	S&F CP finish brass robe hook	Each	348.00
379	TBSP-F.VII-20	Supply & Fixing Double coat hook with 10 years warranty	Each	823.00
380	TBSP-F.VII-21	S&F CP finish brass soap dish	Each	623.00
381	TBSP-F.VII-22	S&F Stainless steel liquid soap container wall mounted and bottle type	Each	496.00
382	TBSP-F.VII-23	S&F premium make wall mirror with provision for overhead shower and 115 mm long bend pipe with wall flange and with 10 years warranty	Each	6,038.00
383	TBSP-F.VII-24	S&F premium make wall mirror with provision for overhead shower and 115 mm long bend pipe with wall flange powder coated with 10 years warranty	Each	9,496.00
384	TBSP-F.VII-25	S&F of Chromium plated finish stainless steel body Toilet paper holder with 10 years warranty	Each	959.00
385	TBSP-F.VII-26	S&F Stainless steel 4" dia round Grating with frame for nahany or floor trap cover with or without hole	Each	71.00
386	TBSP-F.VII-27	S&F Stainless steel 5" square Grating with frame for nahany or floor trap cover with or without hole	Each	84.00
387	TBSP-F.VII-28	S&F Stainless steel 4" dia round Grating for nahany or floor trap cover with cockroach trap with or without hole	Each	183.00
388	TBSP-F.VII-29	S&F Stainless steel 5" square Grating for nahany or floor trap cover with cockroach trap with or without hole	Each	190.00
389	TBSP-F.VII-30	S&F brass body plumber union of size 31.75 mm dia with check nut	Each	77.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
390	TBSP-F.VII-31	S&F brass body plumber union of size 38.1 mm dia with check nut	Each	83.00
391	TBSP-F.VII-32	S&F 4" dia CP thimble pipe: 150 mm long	Each	456.00
392	TBSP-F.VII-33	S&F 4" dia CP thimble pipe: 220 mm long	Each	677.00
393	TBSP-F.VII-34	S&F 4" dia CP thimble pipe: 300 mm long	Each	907.00
394	TBSP-F.VII-35	S&F CP long bend	Each	385.00
395	TBSP-F.VII-36	S&F CP short bend	Each	194.00
396	TBSP-F.VII-37	Supply & fixing of LLC handle set 1st quality	Each	89.00
397	TBSP-F.VII-38	S&F premium make copper pipe 450 mm long with nuts & washers with 10 years warranty	Each	461.00
398	TBSP-F.VII-39	S&F premium make copper pipe 450 mm long with nuts & washers power colour coated and with 10 years warranty	Each	890.00
399	TBSP-F.VII-40	S&F of Chromium plated finish stainless steel body Tumbler holder with 10 years warranty	Each	1,198.00
400	TBSP-F.VII-41	S&F of Chromium plated finish stainless steel body Glass shelf 22" with 10 years warranty	Each	2,355.00
VII	SUB-SECTION	LABOUR CHARGES		
401	TBSP-F.VIII-01	Labour charges for fixing all types of CP Taps & faucets	Each	67.00
402	TBSP-F.VIII-02	Labour charges for fixing all types of CP Stop & Angle Valves	Each	128.00
403	TBSP-F.VIII-03	Labour charges for fixing all types of wall combination taps, mixers & diverters	Each	223.00
404	TBSP-F.VIII-04	Labour charges for fixing all types of miscellaneous CP fittings	Each	128.00
405	TBSP-F.VIII-05	Cleaning of water tanks, Sumps and PVC/RCC tank through 'T' clean process undertaking cleaning by using latest German state of art technology with High pressure Rotary Jet cleaning and usage of the most effective Anti-bacterial agents, which is Bio degradable and eco friendly in nature, UV radiation in following stages: 1. First stage of Mechanized dewatering, 2. Cleaning of wall and ceiling to the sump with high pressure rotary jet which dislodges the layer of dirt and algae, 3. Dirty water and sludge are removed by using sludge pump, 4. Removing dirt is again removed by using industrial vacuum, 5. Treatment of wall ceiling roof with anti-bacterial liquid (which is bio degradable and eco-friendly in nature), 6. Final important treatment is ultra violet radiation which kills suspended or floating bacteria(for sumps)	1000	99.00
G	SECTION	G.I. PIPES & FITTINGS (Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)		
I	SUB-SECTION	G.I. PIPES		
406	TBSP-G.I-01	S& F 15 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	202.00
407	TBSP-G.I-02	S& F 20 mm Nominal Bore GI pipe Light Grade	1 RM	233.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete		
408	TBSP-G.I-03	S& F 25 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	304.00
409	TBSP-G.I-04	S& F 32 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	422.00
410	TBSP-G.I-05	S& F 40 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	474.00
411	TBSP-G.I-06	S& F 50 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	519.00
412	TBSP-G.I-07	S& F 15 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	223.00
413	TBSP-G.I-08	S& F 20 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	249.00
414	TBSP-G.I-09	S& F 25 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	326.00
415	TBSP-G.I-10	S& F 32 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	455.00
416	TBSP-G.I-11	S& F 40 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	510.00
417	TBSP-G.I-12	S& F 50 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	547.00
418	TBSP-G.I-13	S & F 65 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 with GI fittings such as elbows tees couplings, nipples, plugs including excavation for trenches and refilling the trenches complete except for GI bends union and GI connectors with checkout and socket Tata or Zenith make or equivalent.	1 RM	970.00
II	SUB-SECTION	G.I. FITTINGS		
419	TBSP-G.II-01	S& F GI union 15 mm nominal size Ist Quality	Each	51.00
420	TBSP-G.II-02	S& F GI union 20 mm nominal size Ist Quality	Each	61.00
421	TBSP-G.II-03	S& F GI union 25 mm nominal size Ist Quality	Each	91.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
422	TBSP-G.II-04	S& F GI union 30 mm nominal size 1st Quality	Each	112.00
423	TBSP-G.II-05	S& F GI union 40 mm nominal size 1st Quality	Each	134.00
424	TBSP-G.II-06	S& F GI union 50 mm nominal size 1st Quality	Each	166.00
425	TBSP-G.II-07	S& F GI connector 25 mm nominal size dia	Each	100.00
426	TBSP-G.II-08	S& F 15 mm nominal size GI 'T' A class 1st quality	Each	63.00
427	TBSP-G.II-09	S& F 30 mm nominal size dia GI bend 1st quality	Each	91.00
428	TBSP-G.II-10	S & F 30 mm nominal size dia GI 'T' 1st Quality	Each	90.00
429	TBSP-G.II-11	S & F 25 mm nominal size copper body float valve with PVC ball Indian make ISI mark	Each	511.00
430	TBSP-G.II-12	S & F 20 mm nominal size copper body float valve with PVC ball Indian make ISI mark	Each	420.00
431	TBSP-G.II-13	S & F 15 mm nominal size copper body float valve with PVC ball Indian make ISI mark	Each	273.00
432	TBSP-G.II-14	Supplying & fixing leather washers for 15 mm nominal size bib tap and stop cock	Each	5.00
433	TBSP-G.II-15	Supplying & fixing leather washers for 20 mm nominal size bib tap and stop cock	Each	7.00
434	TBSP-G.II-16	Supplying & Fixing 15 mm nominal size fibre washers	Each	7.00
435	TBSP-G.II-17	Supplying & Fixing 20 mm nominal size fibre washers	Each	7.00
436	TBSP-G.II-18	S & F 15 mm nominal size holder bat clamps	Each	16.00
437	TBSP-G.II-19	S & F 20 mm nominal size holder bat clamps	Each	23.00
438	TBSP-G.II-20	S & F 25 mm nominal size holder bat clamps	Each	32.00
439	TBSP-G.II-21	S & F 40 mm nominal size holder bat clamps	Each	37.00
440	TBSP-G.II-22	Supplying & fixing 15 mm nominal size GI drainpipe with plug for tanks (Mud valve) including making a hole	Each	53.00
441	TBSP-G.II-23	Supplying & fixing 20 mm nominal size GI drainpipe with plug for tanks (Mud valve) including making a hole	Each	76.00
442	TBSP-G.II-24	Supplying & fixing 25 mm nominal size GI drainpipe with plug for tanks (Mud valve) including making a hole	Each	90.00
III	SUB-SECTION	BRONZE (COPPER ALLOY) VALVES		
443	TBSP-G.III-01	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indian make heavy type-15mm NB Size	Each	700.00
444	TBSP-G.III-02	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indian make heavy type-20mm NB Size	Each	942.00
445	TBSP-G.III-03	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indian make heavy type-25mm NB Size	Each	1,354.00
446	TBSP-G.III-04	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indian make heavy type-32mm NB Size	Each	2,057.00
447	TBSP-G.III-05	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indian make heavy type-40mm NB Size	Each	2,774.00
448	TBSP-G.III-06	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indian make heavy type-50mm NB Size	Each	4,069.00
449	TBSP-G.III-07	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indian make heavy type-65mm NB Size	Each	6,280.00
450	TBSP-G.III-08	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indian make heavy type-80mm NB Size	Each	9,309.00
451	TBSP-G.III-09	Supplying & fixing Bronze Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 15	Each	517.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		mm NB Size		
452	TBSP-G.III-10	Supplying & fixing Bronze Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 20 mm NB Size	Each	754.00
453	TBSP-G.III-11	Supplying & fixing Bronze Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 25 mm NB Size	Each	1,178.00
454	TBSP-G.III-12	Supplying & fixing Bronze Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 32 mm NB Size	Each	1,728.00
455	TBSP-G.III-13	Supplying & fixing Bronze Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 40 mm NB Size	Each	2,395.00
456	TBSP-G.III-14	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 15 mm NB Size	Each	486.00
457	TBSP-G.III-15	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 20 mm NB Size	Each	634.00
458	TBSP-G.III-16	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 25 mm NB Size	Each	957.00
459	TBSP-G.III-17	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 32 mm NB Size	Each	1,315.00
460	TBSP-G.III-18	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 40 mm NB Size	Each	1,591.00
461	TBSP-G.III-19	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 50 mm NB Size	Each	2,522.00
462	TBSP-G.III-20	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 15 mm NB Size	Each	230.00
463	TBSP-G.III-21	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 20 mm NB Size	Each	331.00
464	TBSP-G.III-22	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 25 mm NB Size	Each	466.00
465	TBSP-G.III-23	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 32 mm NB Size	Each	824.00
466	TBSP-G.III-24	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 40 mm NB Size	Each	1,134.00
467	TBSP-G.III-25	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 50 mm NB Size	Each	1,703.00
468	TBSP-G.III-26	S & F Bronze Compact pressure reducing valve (Screwed) as per IS - Class -I, Indian make heavy type- 15 mm NB Size	Each	1,479.00
469	TBSP-G.III-27	S & F Bronze Compact pressure reducing valve	Each	1,882.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		(Screwed) as per IS - Class -I, Indian make heavy type- 20 mm NB Size		
IV	SUB-SECTION	LABOUR CHARGES FOR G.I PLUMBING		
470	TBSP-G.IV-01	Taking branch water connection from the existing 25 mm nominal size GI pipe including cutting threading, etc., complete with fitting	Each	216.00
471	TBSP-G.IV-02	Taking branch water connection from the existing 20 mm nominal size GI pipe including cutting threading, etc., complete with fitting	Each	123.00
472	TBSP-G.IV-03	Taking branch water connection from the existing 15 mm nominal size GI pipe including cutting threading, etc., complete with fitting	Each	80.00
H	SECTION	PVC PIPES & FITTINGS (Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)		
I	SUB-SECTION	PVC PIPES		
473	TBSP-H.I-01	75 mm dia 3 M Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	301.00
474	TBSP-H.I-02	90 mm dia 3 M single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	477.00
475	TBSP-H.I-03	110 mm dia 3 M Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	569.00
476	TBSP-H.I-04	75 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 4	Each	339.00
477	TBSP-H.I-05	90 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 4	Each	540.00
478	TBSP-H.I-06	110 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 4	Each	661.00
479	TBSP-H.I-07	75 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	211.00
480	TBSP-H.I-08	90 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	327.00
481	TBSP-H.I-09	110 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	407.00
482	TBSP-H.I-10	75 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 4Kg/sq.cm	Each	226.00
483	TBSP-H.I-11	90 mm dia 1828.8 mm (6'-0") Double /SWR pipe - 4Kg/sq.cm	Each	348.00
484	TBSP-H.I-12	110 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	419.00
485	TBSP-H.I-13	75 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	157.00
486	TBSP-H.I-14	90 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	238.00
487	TBSP-H.I-15	110 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	288.00
488	TBSP-H.I-16	75 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	131.00
489	TBSP-H.I-17	90 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	194.00
490	TBSP-H.I-18	110 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	249.00
491	TBSP-H.I-19	75 mm dia 609.6mm (2'-0") Double Socket		81.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		PVC/SWR pipe - 4 Kg/sq.cm	Each	
492	TBSP-H.I-20	90 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	134.00
493	TBSP-H.I-21	110 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	166.00
494	TBSP-H.I-22	160 MM dia 3 M Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	1,354.00
495	TBSP-H.I-23	75 mm dia 3 M Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	509.00
496	TBSP-H.I-24	90 mm dia 3 M single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	818.00
497	TBSP-H.I-25	110 mm dia 3 M Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	972.00
498	TBSP-H.I-26	75 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 6	Each	558.00
499	TBSP-H.I-27	90 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 6	Each	882.00
500	TBSP-H.I-28	110 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 6	Each	1,074.00
501	TBSP-H.I-29	75 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	335.00
502	TBSP-H.I-30	90 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	519.00
503	TBSP-H.I-31	110 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	618.00
504	TBSP-H.I-32	75 mm dia 1828.8 mm (6'-0") Double /SWR pipe - 6Kg/sq.cm	Each	357.00
505	TBSP-H.I-33	90 mm dia 1828.8 mm (6'-0") Double /SWR pipe - 6Kg/sq.cm	Each	540.00
506	TBSP-H.I-34	110 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	668.00
507	TBSP-H.I-35	75 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	243.00
508	TBSP-H.I-36	90 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	376.00
509	TBSP-H.I-37	110 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	456.00
510	TBSP-H.I-38	75 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	209.00
511	TBSP-H.I-39	90 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	306.00
512	TBSP-H.I-40	110 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	368.00
513	TBSP-H.I-41	75 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	136.00
514	TBSP-H.I-42	90 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	210.00
515	TBSP-H.I-43	110 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	269.00
516	TBSP-H.I-44	160 mm dia 3 M Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	2,213.00
		PVC-O PIPES		
517	TBSP-H.I-45	Providing and supplying in ISI mark rigid PVC o	1 RM	798.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 110mm		
518	TBSP-H.I-46	Providing and supplying in ISI mark rigid PVC o Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 160mm	1 RM	1,121.00
519	TBSP-H.I-47	Providing and supplying in ISI mark rigid PVC o Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 200mm	1 RM	1,570.00
520	TBSP-H.I-48	Providing and supplying in ISI mark rigid PVC o Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 250mm	1 RM	2,121.00
521	TBSP-H.I-49	Providing and supplying in ISI mark rigid PVC o Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 315mm	1 RM	2,746.00
522	TBSP-H.I-50	Providing and supplying in ISI mark rigid PVC o Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 400mm	1 RM	4,265.00
523	TBSP-H.I-51	Providing and supplying in ISI mark rigid PVC o Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 110mm	1 RM	950.00
524	TBSP-H.I-52	Providing and supplying in ISI mark rigid PVC o Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 160mm	1 RM	1,420.00
525	TBSP-H.I-53	Providing and supplying in ISI mark rigid PVC o Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 200mm	1 RM	1,915.00
526	TBSP-H.I-54	Providing and supplying in ISI mark rigid PVC o	1 RM	2,537.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 250mm		
527	TBSP-H.I-55	Providing and supplying in ISI mark rigid PVC o Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 315mm	1 RM	3,244.00
528	TBSP-H.I-56	Providing and supplying in ISI mark rigid PVC o Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 400mm	1 RM	4,963.00
529	TBSP-H.I-57	Supply and laying of UPVC SWR Ring fit pipe (as per IS 13592 -1992) SS Type A - 3M - 75mm dia	1 RM	578.00
530	TBSP-H.I-58	Supply and laying of UPVC SWR Ring fit pipe (as per IS 13592 -1992)SS Type A - 3M - 90mm dia	1 RM	798.00
531	TBSP-H.I-59	Supply and laying of UPVC SWR Ring fit pipe (as per IS 13592 -1992)SS Type A - 3M - 110mm dia	1 RM	1,075.00
532	TBSP-H.I-60	Supply and laying of UPVC SWR Ring fit pipe (as per IS 13592 -1992)SS Type A - 3M - 160mm dia	1 RM	2,321.00
533	TBSP-H.I-61	Supply and laying of UPVC SWR Self fit pipe (as per IS 13592 -1992) SS Type A - 3M - 75mm dia	1 RM	564.00
534	TBSP-H.I-62	Supply and laying of UPVC SWR Self fit pipe (as per IS 13592 -1992)SS Type A - 3M - 90mm dia	1 RM	781.00
535	TBSP-H.I-63	Supply and laying of UPVC SWR Self fit pipe (as per IS 13592 -1992)SS Type A - 3M - 110mm dia	1 RM	1,028.00
536	TBSP-H.I-64	Supply and laying of UPVC SWR Self fit pipe (as per IS 13592 -1992)SS Type A - 3M - 160mm dia	1 RM	2,282.00
III	SUB-SECTION	PVC FITTINGS		
537	TBSP-H.II-01	Providing & Placing on Terrace (at all floor levels) polyethylene water storage tank with Double layer approved brand & manufacture with cover and suitable locking arrangement & making necessary holes for inlet & outlets and overflow pipes but without fittings & base support for tanks	1 Lit	10.00
538	TBSP-H.II-02	Supply of Plastic storage tank lid with hinges	Each	91.00
539	TBSP-H.II-03	Supply & Fixing 75 mm nominal size dia PVC elbow Ist quality	Each	57.00
540	TBSP-H.II-04	Supply & fixing 30 mm nominal size dia PVC flexible waste pipe of 914.4 mm length of Ist quality	Each	33.00
541	TBSP-H.II-05	Supply & Fixing 40 mm nominal size dia PVC solid waste pipe outlet	Each	108.00
542	TBSP-H.II-06	Supply & fixing Fancy PVC shelf including all fittings	Each	255.00
543	TBSP-H.II-07	Supply & fixing of PVC low level system with internal components & short bend: 10 Litres capacity Single Flush	Each	1,740.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
544	TBSP-H.II-08	Supply & fixing of PVC low level system with internal components & short bend: 10 litres capacity Dual Flush	Each	2,045.00
545	TBSP-H.II-09	Supply & fixing of PVC low level system with internal components & short bend: 8 Litres capacity single Flush	Each	985.00
546	TBSP-H.II-10	75 mm dia - Plain Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	61.00
547	TBSP-H.II-11	90 mm dia - Plain Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	84.00
548	TBSP-H.II-12	110 mm dia - Plain Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	100.00
549	TBSP-H.II-13	75 mm dia - Door Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	81.00
550	TBSP-H.II-14	90 mm dia - Door Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	113.00
551	TBSP-H.II-15	110 mm dia - Door Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	128.00
552	TBSP-H.II-16	75 mm dia - 45 Degree Bend - UPVC/SWR Pipe fittings	Each	47.00
553	TBSP-H.II-17	90 mm dia - 45 Degree Bend - UPVC/SWR Pipe fittings	Each	66.00
554	TBSP-H.II-18	110 mm dia - 45 Degree Bend - UPVC/SWR Pipe fittings	Each	84.00
555	TBSP-H.II-19	75 mm dia - Cleaning Pipe - UPVC/SWR Pipe fittings	Each	81.00
556	TBSP-H.II-20	90 mm dia - Cleaning Pipe - UPVC/SWR Pipe fittings	Each	117.00
557	TBSP-H.II-21	110 mm dia - Cleaning Pipe - UPVC/SWR Pipe fittings	Each	140.00
558	TBSP-H.II-22	75 mm dia - Single Tee - UPVC/SWR Pipe fittings	Each	71.00
559	TBSP-H.II-23	90 mm dia - Single Tee - UPVC/SWR Pipe fittings	Each	106.00
560	TBSP-H.II-24	110 mm dia - Single Tee - UPVC/SWR Pipe fittings	Each	129.00
561	TBSP-H.II-25	75 mm dia - Single Tee with Door - UPVC/SWR Pipe fittings	Each	88.00
562	TBSP-H.II-26	90 mm dia - Single Tee with Door - UPVC/SWR Pipe fittings	Each	129.00
563	TBSP-H.II-27	110 mm dia - Single Tee with Door - UPVC/SWR Pipe fittings	Each	154.00
564	TBSP-H.II-28	75 mm dia - Double Tee - UPVC/SWR Pipe fittings	Each	149.00
565	TBSP-H.II-29	90 mm dia - Double Tee - UPVC/SWR Pipe fittings	Each	217.00
566	TBSP-H.II-30	110 mm dia - Double Tee - UPVC/SWR Pipe fittings	Each	306.00
567	TBSP-H.II-31	75 mm dia - Double Tee with Door - UPVC/SWR Pipe fittings	Each	236.00
568	TBSP-H.II-32	90 mm dia - Double Tee with Door - UPVC/SWR Pipe fittings	Each	337.00
569	TBSP-H.II-33	110 mm dia - Double Tee with Door - UPVC/SWR Pipe fittings	Each	349.00
570	TBSP-H.II-34	75 mm dia - Single 'Y' - UPVC/SWR Pipe fittings	Each	89.00
571	TBSP-H.II-35	90 mm dia - Single 'Y' - UPVC/SWR Pipe fittings	Each	140.00
572	TBSP-H.II-36	110 mm dia - Single 'Y' - UPVC/SWR Pipe fittings	Each	162.00
573	TBSP-H.II-37	75 mm dia - Single 'Y' with Door - UPVC/SWR Pipe fittings	Each	113.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
574	TBSP-H.II-38	90 mm dia - Single 'Y' with Door - UPVC/SWR Pipe fittings	Each	177.00
575	TBSP-H.II-39	110 mm dia - Single 'Y' with Door - UPVC/SWR Pipe fittings	Each	203.00
576	TBSP-H.II-40	75 mm dia - Double 'Y' - UPVC/SWR Pipe fittings	Each	122.00
577	TBSP-H.II-41	90 mm dia - Double 'Y' - UPVC/SWR Pipe fittings	Each	188.00
578	TBSP-H.II-42	110 mm dia - Double 'Y' - UPVC/SWR Pipe fittings	Each	211.00
579	TBSP-H.II-43	75 mm dia - Double 'Y' with Door - UPVC/SWR Pipe fittings	Each	157.00
580	TBSP-H.II-44	90 mm dia - Double 'Y' with Door - UPVC/SWR Pipe fittings	Each	244.00
581	TBSP-H.II-45	110 mm dia - Double 'Y' with Door - UPVC/SWR Pipe fittings	Each	273.00
582	TBSP-H.II-46	75 mm dia - Coupler - UPVC/SWR Pipe fittings	Each	43.00
583	TBSP-H.II-47	90 mm dia - Coupler - UPVC/SWR Pipe fittings	Each	61.00
584	TBSP-H.II-48	110 mm dia - Coupler - UPVC/SWR Pipe fittings	Each	69.00
585	TBSP-H.II-49	90 x 75 mm dia - Reducer - UPVC/SWR Pipe fittings	Each	71.00
586	TBSP-H.II-50	110 x 75 mm dia - Reducer - UPVC/SWR Pipe fittings	Each	69.00
587	TBSP-H.II-51	90 x 110 mm dia - Reducer - UPVC/SWR Pipe fittings	Each	95.00
588	TBSP-H.II-52	63 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	13.00
589	TBSP-H.II-53	75 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	18.00
590	TBSP-H.II-54	90 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	21.00
591	TBSP-H.II-55	110 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	23.00
592	TBSP-H.II-56	40 mm dia - Pipe Clip - UPVC/SWR Pipe fittings - Pipe Clip - UPVC/SWR Pipe fittings	Each	15.00
593	TBSP-H.II-57	50 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	18.00
594	TBSP-H.II-58	63 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	18.00
595	TBSP-H.II-59	75 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	19.00
596	TBSP-H.II-60	90 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	21.00
597	TBSP-H.II-61	110 mm - Pipe Clip - UPVC/SWR Pipe fittings	Each	22.00
598	TBSP-H.II-62	160 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	43.00
599	TBSP-H.II-63	P' Trap (Small without Air vent) 110 mm - UPVC/SWR Pipe fittings	Each	223.00
600	TBSP-H.II-64	P' Trap (Small with Air vent) 110 mm - UPVC/SWR Pipe fittings	Each	246.00
601	TBSP-H.II-65	P' Trap (Big with Air vent) 110 mm - UPVC/SWR Pipe fittings	Each	281.00
602	TBSP-H.II-66	P' Trap (Big without Air vent) 110 mm - UPVC/SWR Pipe fittings	Each	259.00
603	TBSP-H.II-67	Floor Trap (Bell Mouth) 110 mm - UPVC/SWR Pipe fittings	Each	269.00
604	TBSP-H.II-68	Bell Mouth Trap 7 " (177.8 mm) - UPVC/SWR Pipe fittings	Each	389.00
605	TBSP-H.II-69	4" (101.6 mm) Nahany Trap (Without Jali with inlet)UPVC/SWR Pipe fittings	Each	134.00
606	TBSP-H.II-70	3" (75 mm nominal size) Nahany Trap (without Jali without inlet)UPVC/SWR Pipe fittings	Each	104.00
607	TBSP-H.II-71	4" (101.6 mm) Nahany Trap (without inlet without Jali)UPVC/SWR Pipe fittings	Each	129.00
608	TBSP-H.II-72	Mini Trap - UPVC/SWR Pipe fittings	Each	65.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
609	TBSP-H.II-73	3" (75 mm nominal size) Nahany Trap with Jali - UPVC/SWR Pipe fittings	Each	122.00
610	TBSP-H.II-74	4" (101.6 mm) multi floor trap with Jali-UPVC/SWR Pipe fittings	Each	171.00
611	TBSP-H.II-75	4" (101.6) multi floor trap without Jali- UPVC/SWR Pipe fittings	Each	134.00
612	TBSP-H.II-76	Round Jali - UPVC/SWR Pipe fittings	Each	31.00
613	TBSP-H.II-77	Square tile &Jali - UPVC/SWR Pipe fittings	Each	47.00
614	TBSP-H.II-78	Pipe connector (with LIP ring) - UPVC/SWR Pipe fittings	Each	179.00
615	TBSP-H.II-79	Pipe connector (without LIP ring) - UPVC/SWR Pipe fittings	Each	139.00
616	TBSP-H.II-80	4" (101.6 mm) Floor Trap - UPVC/SWR Pipe fittings	Each	164.00
617	TBSP-H.II-81	5" (127.mm) floor Trap - UPVC/SWR Pipe fittings	Each	174.00
618	TBSP-H.II-82	75 mm dia - Door cap - UPVC/SWR Pipe fittings	Each	69.00
619	TBSP-H.II-83	90 mm dia - Door cap - UPVC/SWR Pipe fittings	Each	77.00
620	TBSP-H.II-84	110 mm dia - Door cap - UPVC/SWR Pipe fittings	Each	89.00
621	TBSP-H.II-85	75 mm dia - Socket plug - UPVC/SWR Pipe fittings	Each	65.00
622	TBSP-H.II-86	90 mm dia - Socket plug - UPVC/SWR Pipe fittings	Each	74.00
623	TBSP-H.II-87	110 mm dia - Socket plug - UPVC/SWR Pipe fittings	Each	77.00
624	TBSP-H.II-88	75 mm dia - Rubber ring for Socket - UPVC/SWR Pipe fittings	Each	12.00
625	TBSP-H.II-89	90 mm dia - Rubber ring for Socket - UPVC/SWR Pipe fittings	Each	13.00
626	TBSP-H.II-90	110 mm dia - Rubber ring for Socket - UPVC/SWR Pipe fittings	Each	15.00
627	TBSP-H.II-91	75 mm dia - Door Socket - UPVC/SWR Pipe fittings	Each	13.00
628	TBSP-H.II-92	90 mm dia - Door Socket - UPVC/SWR Pipe fittings	Each	15.00
629	TBSP-H.II-93	110 mm dia - Door Socket - UPVC/SWR Pipe fittings	Each	18.00
630	TBSP-H.II-94	LIP ring 110 mm - UPVC/SWR Pipe fittings	Each	83.00
631	TBSP-H.II-95	110mm x 90 mm - Internal Reducer - UPVC/SWR Pipe fittings	Each	108.00
632	TBSP-H.II-96	160 mm x 110 mm - Internal Reducer - UPVC/SWR Pipe fittings	Each	265.00
III	SUB-SECTION	PVC PLUMBING ACCESSORIES		
633	TBSP-H.III-01	Rubber Lubricant - 100 Grams	Each	37.00
634	TBSP-H.III-02	Rubber Lubricant - 250 Grams	Each	78.00
635	TBSP-H.III-03	Rubber Lubricant - 500 Grams	Each	140.00
636	TBSP-H.III-04	Rubber Lubricant - 1000 Grams	Each	259.00
637	TBSP-H.III-05	P' Trap with lip UPVC/SWR Pipe fittings	Each	352.00
638	TBSP-H.III-06	50 ml - Solvent Cement	Each	19.00
639	TBSP-H.III-07	100 ml - Solvent Cement	Each	32.00
640	TBSP-H.III-08	250 ml - Solvent Cement	Each	71.00
641	TBSP-H.III-09	500 ml - Solvent Cement	Each	138.00
642	TBSP-H.III-10	1000 ml - Solvent Cement	Each	269.00
IV	SUB-SECTION	LABOUR CHARGES FOR PVC PLUMBING		
643	TBSP-H.IV-01	Labour charges for laying, fixing and commissioning the PVC pipes including couplers/ bends/ tees etc. any diameter including fixing necessary fittings like bends, plugs, couplers,	1 RM	98.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		junctions, tees, etc. with solvent jointing as per standard practice		
644	TBSP-H.IV-02	Labour charges for laying, joining, welding, fixing and commissioning the PPR pipes including all specials such as couplers/ bends/ tees etc. including fixing necessary fittings like bends, plugs, couplers, junctions, tees, etc. with welding the joint as per standard practice - up to 40 mm dia	1 RM	46.00
645	TBSP-H.IV-03	Labour charges for laying, joining, welding, fixing and commissioning the PPR pipes including all specials such as couplers/ bends/ tees etc. including fixing necessary fittings like bends, plugs, couplers, junctions, tees, etc. with welding the joint as per standard practice - above 40 mm dia	1 RM	75.00
J	SECTION	MISCELLANEOUS ITEMS		
I	SUB-SECTION	MISCELLANEOUS PLUMBING WORK ITEMS		
646	TBSP-J.I-01	Supplying & Fixing solder joints up to 50 mm nominal size dia	Each	69.00
647	TBSP-J.I-02	Supplying & Fixing solution joints up to 50.8 dia 1st quality.	Each	15.00
648	TBSP-J.I-03	Chiselling the stone masonry wall for fixing of wooden blocks including finishing as directed by the department	Each	39.00
649	TBSP-J.I-04	Chiselling the stone masonry wall and repairs as directed by the department.	1 Rm	182.00
650	TBSP-J.I-05	Chiselling the brick masonry wall and repairs as directed by the department.	1 Rm	39.00
651	TBSP-J.I-06	Painting the flushing tank with white enamel paint	Each	120.00
652	TBSP-J.I-07	S & F internal cistern fittings for PVC flush tank	Each	1,032.00
653	TBSP-J.I-08	Repairing and over hauling flushing tank	Each	119.00
654	TBSP-J.I-09	Removing and refixing W.C s	Each	310.00
655	TBSP-J.I-10	Removing and refixing wash hand basins of any size with fittings complete	Each	278.00
656	TBSP-J.I-11	Removing 15 mm nominal size GI pipe and refixing the same	Mr.	87.00
657	TBSP-J.I-12	Removing 20 mm nominal size GI pipe and refixing the same	Mr.	98.00
658	TBSP-J.I-13	Removing 25 mm nominal size GI pipe and refixing the same	Mr.	141.00
659	TBSP-J.I-14	Removing 40 mm nominal size GI pipe and refixing the same	Rm	181.00
660	TBSP-J.I-15	Removing 50 mm nominal size GI pipe and refixing the same	Rm	210.00
661	TBSP-J.I-16	Cleaning the W.C with acid and Vim powder	Each	59.00
662	TBSP-J.I-17	Cleaning the Urinal with acid and Vim power	Each	59.00
663	TBSP-J.I-18	Cleaning the wash basin with acid and Vim powder	Each	59.00
664	TBSP-J.I-19	Cleaning the E.W.C with acid and Vim power	Each	59.00
665	TBSP-J.I-20	Cutting holes in C.C; basement & repairs Labour charges only	Each	137.00
666	TBSP-J.I-21	Cutting holes in stone masonry & basement and repairs Labour charges only	Each	92.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
667	TBSP-J.I-22	Cutting holes in Brick masonry & repairs Labour charges only	Each	61.00
668	TBSP-J.I-23	Cutting holes in RCC slab floor & repairs Labour charges only	Each	92.00
669	TBSP-J.I-24	Supplying & Fixing NP chain rubber and plug for basin	Each	47.00
670	TBSP-J.I-25	S & F 25 mm nominal size dia & 609.6 mm long aluminium anodized towel rod with brackets and aluminium screws	Each	182.00
671	TBSP-J.I-26	S & F 19.04 mm dia & 609.6 mm long aluminium anodized towel rod with brackets and aluminium screws	Each	159.00
672	TBSP-J.I-27	S & F 609.6 mm long 127 mm wide plate glass shelf with superior quality aluminium railing complete with aluminium screws	Each	233.00
673	TBSP-J.I-28	S & F 609.6 mm long 127 mm wide plate glass shelf only	Each	77.00
674	TBSP-J.I-29	Supplying & fixing 88.9 mm A.C cowls	Each	79.00
675	TBSP-J.I-30	Supplying & fixing A.C Cowl 63.5 mm dia	Each	55.00
676	TBSP-J.I-31	S & F 76.2 x 101.6 mm teak wood block complete	Each	31.00
677	TBSP-J.I-32	Supplying & Fixing 15 mm nominal size PVC connection with brass union nut C.P coated	Each	124.00
678	TBSP-J.I-33	Removing of 101.6 mm or 75 mm nominal size CI pipe	1 RM	51.00
679	TBSP-J.I-34	Supplying & fixing 75 mm nominal size W.I clamps	Each	30.00
680	TBSP-J.I-35	Supplying and fixing TV shape mirror with plastic frame size 609.6 mm x 457.2 mm	Each	564.00
681	TBSP-J.I-36	Supplying & fixing GI pipe plug of size 15 mm nominal size dia	Each	13.00
682	TBSP-J.I-37	Supplying & fixing 20 mm dia GI plug	Each	18.00
683	TBSP-J.I-38	Supplying and fixing 40 mm nominal size dia of GI plug	Each	89.00
684	TBSP-J.I-39	Supplying & fixing 50 mm nominal size dia of GI PLUG	Each	135.00
685	TBSP-J.I-40	Supplying & fixing 75 mm nominal size dia of GI PLUG	Each	242.00
686	TBSP-J.I-41	Supplying and fixing Rectangular Mirror Frameless of size 457.2 mm x 609.6 mm	Each	1,619.00
687	TBSP-J.I-42	Supplying and fixing Rectangular Mirror Frameless of size 609.6 mm x 914.4 mm	Each	3,129.00
II	SUB-SECTION	POLYETHYLENE-ALUMINIUM-POLYETHYLENE COMPOSITE PIPES		
688	TBSP-J.II-01	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold-water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc. : 16 mm OD pipe	1 RM	174.00
689	TBSP-J.II-02	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-	1 RM	215.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold-water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc. : 20 mm		
690	TBSP-J.II-03	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold-water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc. : 25mm	1 RM	270.00
691	TBSP-J.II-04	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold-water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc. : 32 mm	1 RM	361.00
692	TBSP-J.II-05	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold-water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc. : 40 mm	1 RM	473.00
693	TBSP-J.II-06	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold-water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc:50mmODpipe	1 RM	602.00
694	TBSP-J.II-07	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite	1 RM	250.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 16 mm		
695	TBSP-J.II-08	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 20 mm	1 RM	300.00
696	TBSP-J.II-09	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, , couplers, connectors etc. complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 25mm	1 RM	370.00
697	TBSP-J.II-10	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, , couplers, connectors etc. complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 32 mm	1 RM	486.00
698	TBSP-J.II-11	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, , couplers, connectors etc. complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 40 mm	1 RM	629.00
699	TBSP-J.II-12	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, , couplers, connectors etc. complete with MS Iron	1 RM	798.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 50 mm		
700	TBSP-J.II-13	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc. 16 mm	1 RM	207.00
701	TBSP-J.II-14	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc. 20 mm	1 RM	244.00
702	TBSP-J.II-15	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc. 25mm	1 RM	295.00
703	TBSP-J.II-16	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc. 32 mm	1 RM	380.00
704	TBSP-J.II-17	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc.	1 RM	485.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc. 40 mm		
III	SUB-SECTION	OTHER VARIETIES OF PIPES		
705	TBSP-J.III-01	Supply of premium make CPVC Pipes of 15.90mm OD Pipe- SDR 13.5	1 RM	155.00
706	TBSP-J.III-02	Supply of premium make CPVC Pipes of 22.20mm OD Pipe- SDR 13.5	1 RM	178.00
707	TBSP-J.III-03	Supply of premium make CPVC Pipes of 28.60mm OD Pipe- SDR 13.5	1 RM	235.00
708	TBSP-J.III-04	Supply of premium make CPVC Pipes of 34.90mm OD Pipe- SDR 13.5	1 RM	320.00
709	TBSP-J.III-05	Supply of premium make CPVC Pipes of 41.30mm OD Pipe- SDR 13.5	1 RM	396.00
710	TBSP-J.III-06	Supply of premium make CPVC Pipes of 54.00mm OD Pipe- SDR 13.5	1 RM	577.00
711	TBSP-J.III-07	Supply of premium make CPVC Pipes of 15.90mm OD Pipe- SDR 11	1 RM	173.00
712	TBSP-J.III-08	Supply of premium make CPVC Pipes of 22.20mm OD Pipe- SDR 11	1 RM	209.00
713	TBSP-J.III-09	Supply of premium make CPVC Pipes of 28.60mm OD Pipe- SDR 11	1 RM	250.00
714	TBSP-J.III-10	Supply of premium make CPVC Pipes of 34.90mm OD Pipe- SDR 11	1 RM	340.00
715	TBSP-J.III-11	Supply of premium make CPVC Pipes of 41.30mm OD Pipe- SDR 11	1 RM	422.00
716	TBSP-J.III-12	Supply of premium make CPVC Pipes of 54.00mm OD Pipe- SDR 11	1 RM	615.00
717	TBSP-J.III-13	Supply of 20mm x 1.9mm PN 10/PPR pipe conforming to DIN Standards 8077/8078	1 RM	53.00
718	TBSP-J.III-14	Supply of 25mm x 2.3mm PN 10/PPR pipe conforming to DIN Standards 8077/8078	1 RM	79.00
719	TBSP-J.III-15	Supply of 32mm x 2.9mm PN 10/PPR pipe conforming to DIN Standards 8077/8079	1 RM	126.00
720	TBSP-J.III-16	Supply of 40mm x 3.7mm PN 10/PPR pipe conforming to DIN Standards 8077/8079	1 RM	195.00
721	TBSP-J.III-17	Supply of 50mm x 4.6mm PN 10/PPR pipe conforming to DIN Standards 8077/8080	1 RM	349.00
722	TBSP-J.III-18	Supply of 63mm x 5.8mm PN 10/PPR pipe conforming to DIN Standards 8077/8081	1 RM	545.00
723	TBSP-J.III-19	Supply of 75mm x 6.8mm PN 10/PPR pipe conforming to DIN Standards 8077/8082	1 RM	757.00
724	TBSP-J.III-20	Supply of 90mm x 8.2mm PN 10/PPR pipe conforming to DIN Standards 8077/8083	1 RM	1,038.00
725	TBSP-J.III-21	Supply of 110mm x 10mm PN 10/PPR pipe conforming to DIN Standards 8077/8084	1 RM	1,536.00
726	TBSP-J.III-22	Supply of 20mm x 2.8mm PN 16/PPR pipe conforming to DIN Standards 8077/8078	1 RM	72.00
727	TBSP-J.III-23	Supply of 25mm x 3.5mm PN 16/PPR pipe conforming to DIN Standards 8077/8078	1 RM	112.00
728	TBSP-J.III-24	Supply of 32mm x 4.4mm PN 16/PPR pipe conforming to DIN Standards 8077/8079	1 RM	177.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
729	TBSP-J.III-25	Supply of 40mm x 5.5mm PN 16/PPR pipe conforming to DIN Standards 8077/8079	1 RM	272.00
730	TBSP-J.III-26	Supply of 50mm x 6.9mm PN 16/PPR pipe conforming to DIN Standards 8077/8080	1 RM	485.00
731	TBSP-J.III-27	Supply of 63mm x 8.6mm PN 16/PPR pipe conforming to DIN Standards 8077/8081	1 RM	762.00
732	TBSP-J.III-28	Supply of 75mm x 10.3mm PN 16/PPR pipe conforming to DIN Standards 8077/8082	1 RM	1,077.00
733	TBSP-J.III-29	Supply of 90mm x 12.3mm PN 16/PPR pipe conforming to DIN Standards 8077/8083	1 RM	1,535.00
734	TBSP-J.III-30	Supply of 110mm x 15.1mm PN 16/PPR pipe conforming to DIN Standards 8077/8084	1 RM	2,297.00
735	TBSP-J.III-31	Supply of 20mm x 3.4mm PN 20/PPR pipe conforming to DIN Standards 8077/8078	1 RM	84.00
736	TBSP-J.III-32	Supply of 25mm x 4.2mm PN 20/PPR pipe conforming to DIN Standards 8077/8078	1 RM	128.00
737	TBSP-J.III-33	Supply of 32mm x 5.4mm PN 20/PPR pipe conforming to DIN Standards 8077/8079	1 RM	207.00
738	TBSP-J.III-34	Supply of 40mm x 6.7mm PN 20/PPR pipe conforming to DIN Standards 8077/8079	1 RM	317.00
739	TBSP-J.III-35	Supply of 50mm x 8.3mm PN 20/PPR pipe conforming to DIN Standards 8077/8080	1 RM	561.00
740	TBSP-J.III-36	Supply of 63mm x 10.5mm PN 20/PPR pipe conforming to DIN Standards 8077/8081	1 RM	883.00
741	TBSP-J.III-37	Supply of 75mm x 12.5mm PN 20/PPR pipe conforming to DIN Standards 8077/8082	1 RM	1,252.00
742	TBSP-J.III-38	Supply of 90mm x 15mm PN 20/PPR pipe conforming to DIN Standards 8077/8083	1 RM	1,701.00
743	TBSP-J.III-39	Supply of 110mm x 18.3mm PN 20/PPR pipe conforming to DIN Standards 8077/8084	1 RM	2,677.00
744	TBSP-J.III-40	Supply of 20mm PPR Socket conforming to DIN Standards 8077/8084	Each	13.00
745	TBSP-J.III-41	Supply of 25mm PPR Socket conforming to DIN Standards 8077/8085	Each	18.00
746	TBSP-J.III-42	Supply of 32mm PPR Socket conforming to DIN Standards 8077/8086	Each	23.00
747	TBSP-J.III-43	Supply of 40mm PPR Socket conforming to DIN Standards 8077/8087	Each	41.00
748	TBSP-J.III-44	Supply of 50mm PPR Socket conforming to DIN Standards 8077/8088	Each	77.00
749	TBSP-J.III-45	Supply of 63mm PPR Socket conforming to DIN Standards 8077/8089	Each	147.00
750	TBSP-J.III-46	Supply of 75mm PPR Socket conforming to DIN Standards 8077/8090	Each	221.00
751	TBSP-J.III-47	Supply of 90mm PPR Socket conforming to DIN Standards 8077/8091	Each	422.00
752	TBSP-J.III-48	Supply of 110mm PPR Socket conforming to DIN Standards 8077/8092	Each	751.00
753	TBSP-J.III-49	Supply of 32mm PPR Core Flange conforming to DIN Standards 8077/8086	Each	46.00
754	TBSP-J.III-50	Supply of 40mm PPR Core Flange conforming to DIN Standards 8077/8087	Each	74.00
755	TBSP-J.III-51	Supply of 50mm PPR Core Flange conforming to	Each	95.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		DIN Standards 8077/8088		
756	TBSP-J.III-52	Supply of 63mm PPR Core Flange conforming to DIN Standards 8077/8089	Each	151.00
757	TBSP-J.III-53	Supply of 75mm PPR Core Flange conforming to DIN Standards 8077/8090	Each	176.00
758	TBSP-J.III-54	Supply of 90mm PPR Core Flange conforming to DIN Standards 8077/8091	Each	444.00
759	TBSP-J.III-55	Supply of 110mm PPR Core Flange conforming to DIN Standards 8077/8092	Each	574.00
760	TBSP-J.III-56	Supply of 20mm PPR Elbow conforming to DIN Standards 8077/8084	Each	21.00
761	TBSP-J.III-57	Supply of 25mm PPR Elbow conforming to DIN Standards 8077/8085	Each	24.00
762	TBSP-J.III-58	Supply of 32mm PPR Elbow conforming to DIN Standards 8077/8086	Each	47.00
763	TBSP-J.III-59	Supply of 40mm PPR Elbow conforming to DIN Standards 8077/8087	Each	82.00
764	TBSP-J.III-60	Supply of 50mm PPR Elbow conforming to DIN Standards 8077/8088	Each	153.00
765	TBSP-J.III-61	Supply of 63mm PPR Elbow conforming to DIN Standards 8077/8089	Each	297.00
766	TBSP-J.III-62	Supply of 75mm PPR Elbow conforming to DIN Standards 8077/8090	Each	479.00
767	TBSP-J.III-63	Supply of 90mm PPR Elbow conforming to DIN Standards 8077/8091	Each	889.00
768	TBSP-J.III-64	Supply of 110mm PPR Elbow conforming to DIN Standards 8077/8092	Each	1,648.00
769	TBSP-J.III-65	Supply of 20mm PPR Tee conforming to DINStandards8077/8084	Each	19.00
770	TBSP-J.III-66	Supply of 25mm PPR Tee conforming to DINStandards8077/8085	Each	33.00
771	TBSP-J.III-67	Supply of 32mm PPR Tee conforming to DINStandards8077/8086	Each	56.00
772	TBSP-J.III-68	Supply of 40mm PPR Tee conforming to DINStandards8077/8087	Each	99.00
773	TBSP-J.III-69	Supply of 50mm PPR Tee conforming to DINStandards8077/8088	Each	175.00
774	TBSP-J.III-70	Supply of 63mm PPR Tee conforming to DINStandards8077/8089	Each	352.00
775	TBSP-J.III-71	Supply of 75mm PPR Tee conforming to DINStandards8077/8090	Each	685.00
776	TBSP-J.III-72	Supply of 90mm PPR Tee conforming to DINStandards8077/8091	Each	994.00
777	TBSP-J.III-73	Supply of 110mm PPR Tee conforming to DIN Standards 8077/8092	Each	1,720.00
778	TBSP-J.III-74	Supply of 20mm PPR End Cap conforming to DIN Standards 8077/8084	Each	10.00
779	TBSP-J.III-75	Supply of 25mm PPR End Cap conforming to DIN Standards 8077/8085	Each	13.00
780	TBSP-J.III-76	Supply of 32mm PPR End Cap conforming to DIN Standards 8077/8086	Each	23.00
781	TBSP-J.III-77	Supply of 40mm PPR End Cap conforming to DIN Standards 8077/8087	Each	41.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
782	TBSP-J.III-78	Supply of 50mm PPR End Cap conforming to DIN Standards 8077/8088	Each	70.00
783	TBSP-J.III-79	Supply of 63mm PPR End Cap conforming to DIN Standards 8077/8089	Each	147.00
784	TBSP-J.III-80	Supply of 75mm PPR End Cap conforming to DIN Standards 8077/8090	Each	244.00
785	TBSP-J.III-81	Supply of 90mm PPR End Cap conforming to DIN Standards 8077/8091	Each	387.00
786	TBSP-J.III-82	Supply of 110mm PPR End Cap conforming to DIN Standards 8077/8092	Each	764.00
787	TBSP-J.III-83	Supply of 25mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	16.00
788	TBSP-J.III-84	Supply of 32mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	24.00
789	TBSP-J.III-85	Supply of 32mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	23.00
790	TBSP-J.III-86	Supply of 40mm x 32mm PPR Reducer conforming to DIN Standards 8077/8092	Each	42.00
791	TBSP-J.III-87	Supply of 40mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	41.00
792	TBSP-J.III-88	Supply of 40mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	40.00
793	TBSP-J.III-89	Supply of 50mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	61.00
794	TBSP-J.III-90	Supply of 50mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	63.00
795	TBSP-J.III-91	Supply of 50mm x 32mm PPR Reducer conforming to DIN Standards 8077/8092	Each	64.00
796	TBSP-J.III-92	Supply of 50mm x 40mm PPR Reducer conforming to DIN Standards 8077/8092	Each	64.00
797	TBSP-J.III-93	Supply of 63mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	136.00
798	TBSP-J.III-94	Supply of 63mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	136.00
799	TBSP-J.III-95	Supply of 63mm x 32mm PPR Reducer conforming to DIN Standards 8077/8092	Each	137.00
800	TBSP-J.III-96	Supply of 63mm x 40mm PPR Reducer conforming to DIN Standards 8077/8092	Each	137.00
801	TBSP-J.III-97	Supply of 63mm x 50mm PPR Reducer conforming to DIN Standards 8077/8092	Each	138.00
802	TBSP-J.III-98	Supply of 75mm x 40mm PPR Reducer conforming to DIN Standards 8077/8092	Each	200.00
803	TBSP-J.III-99	Supply of 75mm x 50mm PPR Reducer conforming to DIN Standards 8077/8092	Each	202.00
804	TBSP-J.III-100	Supply of 75mm x 63mm PPR Reducer conforming to DIN Standards 8077/8092	Each	254.00
805	TBSP-J.III-101	Supply of 90mm x 63mm PPR Reducer conforming to DIN Standards 8077/8092	Each	485.00
806	TBSP-J.III-102	Supply of 90mm x 75mm PPR Reducer conforming to DIN Standards 8077/8092	Each	514.00
807	TBSP-J.III-103	Supply of 110mm x 63mm PPR Reducer conforming to DIN Standards 8077/8092	Each	647.00
808	TBSP-J.III-104	Supply of 110mm x 75mm PPR Reducer conforming	Each	753.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		to DIN Standards 8077/8092		
809	TBSP-J.III-105	Supply of 110mm x 90mm PPR Reducer conforming to DIN Standards 8077/8092	Each	812.00
810	TBSP-J.III-106	Supply of 25mm x 20mm x 25mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	40.00
811	TBSP-J.III-107	Supply of 32mm x 25mm x 32mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	68.00
812	TBSP-J.III-108	Supply of 32mm x 20mm x 32mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	69.00
813	TBSP-J.III-109	Supply of 40mm x 20mm x 40mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	111.00
814	TBSP-J.III-110	Supply of 40mm x 25mm x 40mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	112.00
815	TBSP-J.III-111	Supply of 40mm x 32mm x 40mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	116.00
816	TBSP-J.III-112	Supply of 50mm x 20mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	159.00
817	TBSP-J.III-113	Supply of 50mm x 25mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	161.00
818	TBSP-J.III-114	Supply of 50mm x 32mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	165.00
819	TBSP-J.III-115	Supply of 50mm x 40mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	166.00
820	TBSP-J.III-116	Supply of 63mm x 20mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	457.00
821	TBSP-J.III-117	Supply of 63mm x 25mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	460.00
822	TBSP-J.III-118	Supply of 63mm x 32mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	466.00
823	TBSP-J.III-119	Supply of 63mm x 40mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	472.00
824	TBSP-J.III-120	Supply of 63mm x 50mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	480.00
825	TBSP-J.III-121	Supply of 75mm x 50mm x 75mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	645.00
826	TBSP-J.III-122	Supply of 75mm x 63mm x 75mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	655.00
827	TBSP-J.III-123	Supply of 90mm x 50mm x 90mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	867.00
828	TBSP-J.III-124	Supply of 90mm x 63mm x 90mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	922.00
829	TBSP-J.III-125	Supply of 110mm x 75mm x 110mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	1,571.00
830	TBSP-J.III-126	Supply of 110mm x 90mm x 110mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	1,634.00
831	TBSP-J.III-127	Supply of 20mm x ½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	123.00
832	TBSP-J.III-128	Supply of 25mm x ½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	126.00
833	TBSP-J.III-129	Supply of 25mm x ¾" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	219.00
834	TBSP-J.III-130	Supply of 32mm x ½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	222.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
835	TBSP-J.III-131	Supply of 32mm x ¾" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	231.00
836	TBSP-J.III-132	Supply of 32mm x 1" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	354.00
837	TBSP-J.III-133	Supply of 40mm x 1¼" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	522.00
838	TBSP-J.III-134	Supply of 50mm x 1½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	729.00
839	TBSP-J.III-135	Supply of 63mm x 2" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	969.00
840	TBSP-J.III-136	Supply of 75mm x 2½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	1,867.00
841	TBSP-J.III-137	Supply of 20mm x ½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	189.00
842	TBSP-J.III-138	Supply of 25mm x ½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	195.00
843	TBSP-J.III-139	Supply of 25mm x ¾" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	283.00
844	TBSP-J.III-140	Supply of 32mm x ¾" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	297.00
845	TBSP-J.III-141	Supply of 32mm x 1" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	550.00
846	TBSP-J.III-142	Supply of 40mm x 1¼" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	644.00
847	TBSP-J.III-143	Supply of 50mm x 1½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	898.00
848	TBSP-J.III-144	Supply of 63mm x 2" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	1,382.00
849	TBSP-J.III-145	Supply of 75mm x 2½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	2,210.00
850	TBSP-J.III-146	Supply of 20mm x ½" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	130.00
851	TBSP-J.III-147	Supply of 25mm x ½" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	137.00
852	TBSP-J.III-148	Supply of 25mm x ¾" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	210.00
853	TBSP-J.III-149	Supply of 32mm x ½" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	202.00
854	TBSP-J.III-150	Supply of 32mm x ¾" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	235.00
855	TBSP-J.III-151	Supply of 32mm x 1" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	390.00
856	TBSP-J.III-152	Supply of 20mm x ½" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	195.00
857	TBSP-J.III-153	Supply of 25mm x ½" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	214.00
858	TBSP-J.III-154	Supply of 25mm x ¾" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	282.00
859	TBSP-J.III-155	Supply of 32mm x ½" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	272.00
860	TBSP-J.III-156	Supply of 32mm x 1" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	585.00
861	TBSP-J.III-157	Supply of 20mm x ½" PPR Female Threaded Tee	Each	127.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		conforming to DIN Standards 8077/8092		
862	TBSP-J.III-158	Supply of 25mm x ½" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	138.00
863	TBSP-J.III-159	Supply of 25mm x ¾" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	231.00
864	TBSP-J.III-160	Supply of 32mm x ½" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	243.00
865	TBSP-J.III-161	Supply of 32mm x ¾" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	272.00
866	TBSP-J.III-162	Supply of 32mm x 1" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	381.00
867	TBSP-J.III-163	Supply of 20mm x ½" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	196.00
868	TBSP-J.III-164	Supply of 25mm x ½" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	210.00
869	TBSP-J.III-165	Supply of 25mm x ¾" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	301.00
870	TBSP-J.III-166	Supply of 32mm x ½" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	306.00
871	TBSP-J.III-167	Supply of 32mm x ¾" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	325.00
872	TBSP-J.III-168	Supply of 32mm x 1" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	596.00
873	TBSP-J.III-169	Supply of 20mm x ½" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	503.00
874	TBSP-J.III-170	Supply of 25mm x ¾" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	753.00
875	TBSP-J.III-171	Supply of 32mm x 1" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	1,004.00
876	TBSP-J.III-172	Supply of 40mm x 1¼" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	1,407.00
877	TBSP-J.III-173	Supply of 50mm x 1½" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	2,261.00
878	TBSP-J.III-174	Supply of 63mm x 2" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	3,589.00
879	TBSP-J.III-175	Supply of 20mm x ½" PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	577.00
880	TBSP-J.III-176	Supply of 25mm x ¾" PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	766.00
881	TBSP-J.III-177	Supply of 32mm x 1" PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	1,004.00
882	TBSP-J.III-178	Supply of 40mm x 1¼" PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	1,255.00
883	TBSP-J.III-179	Supply of 50mm x 1½" PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	2,384.00
884	TBSP-J.III-180	Supply of 63mm x 2" PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	4,016.00
885	TBSP-J.III-181	Supply of 20mm PPR Union conforming to DIN Standards 8077/8092	Each	112.00
886	TBSP-J.III-182	Supply of 25mm PPR Union conforming to DIN Standards 8077/8092	Each	129.00
887	TBSP-J.III-183	Supply of 32mm PPR Union conforming to DIN Standards 8077/8092	Each	212.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
888	TBSP-J.III-184	Supply of 20mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	202.00
889	TBSP-J.III-185	Supply of 25mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	267.00
890	TBSP-J.III-186	Supply of 32mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	278.00
891	TBSP-J.III-187	Supply of 40mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	568.00
892	TBSP-J.III-188	Supply of 50mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	661.00
893	TBSP-J.III-189	Supply of 63mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	1,069.00
894	TBSP-J.III-190	Supply of 75mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	1,759.00
895	TBSP-J.III-191	Supply of 90mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	2,510.00
896	TBSP-J.III-192	Supply of 20mm PPR Clamp conforming to DIN Standards 8077/8092	Each	13.00
897	TBSP-J.III-193	Supply of 25mm PPR Clamp conforming to DIN Standards 8077/8092	Each	17.00
898	TBSP-J.III-194	Supply of 32mm PPR Clamp conforming to DIN Standards 8077/8092	Each	19.00
899	TBSP-J.III-195	Supply of 40mm PPR Clamp conforming to DIN Standards 8077/8092	Each	21.00
900	TBSP-J.III-196	Supply of 20mm civic coupler where in the compound should confirm to IS 15778 CPVC pipe and IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	14.00
901	TBSP-J.III-197	Supply of 25mm civic coupler where in the compound should confirm to IS 15778 CPVC pipe and IS 15225 CPVC compound high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	18.00
902	TBSP-J.III-198	Supply of 32mm civic coupler where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	30.00
903	TBSP-J.III-199	Supply of 50mm civic coupler where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	88.00
904	TBSP-J.III-200	Supply of 20mm civic end cap where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	11.00
905	TBSP-J.III-201	Supply of 25mm civic end cap where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	15.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
906	TBSP-J.III-202	Supply of 32mm civic end cap where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	21.00
907	TBSP-J.III-203	Supply of 50mm civic end cap where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	66.00
908	TBSP-J.III-204	Supply of 25mm civic elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	26.00
909	TBSP-J.III-205	Supply of 50mm civic elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	135.00
910	TBSP-J.III-206	Supply of 50x32 mm civic reducing elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	106.00
911	TBSP-J.III-207	Supply of 50mm civic tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	163.00
912	TBSP-J.III-208	Supply of 25x20mm civic reducer where in the compound should confirm to IS 15778 CPVC pipe and IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	20.00
913	TBSP-J.III-209	Supply of 32x25mm civic reducer where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	26.00
914	TBSP-J.III-210	Supply of 20x15mm CPVC brass fta where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	32.00
915	TBSP-J.III-211	Supply of 20mm civic elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	18.00
916	TBSP-J.III-212	Supply of 32mm civic elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	44.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
917	TBSP-J.III-213	Supply of 25x20 mm civic reducing tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	280.00
918	TBSP-J.III-214	Supply of 20x15mm civic brass elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	150.00
919	TBSP-J.III-215	Supply of 32x20 mm civic reducing tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	11.00
920	TBSP-J.III-216	Supply of 50x20mm civic reducing tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	18.00
921	TBSP-J.III-217	Supply of 20x15mm civic brass tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	8.00
922	TBSP-J.III-218	Supply of 50X32MM civic reducing tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	19.00
IV	SUB-SECTION	CPVC PIPES WITH FITTINGS		
923	TBSC-J.IV-01	S&F premium make CPVC Pipes of 15.90mm OD Pipe - SDR 13.5 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental , labour charges, etc. complete for finished item of work as directed by Engineer-in-charge	RM	229.00
924	TBSC-J.IV-02	S&F premium make CPVC Pipes of 22.20mm OD Pipe - SDR 13.5 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental , labour charges, etc. complete for finished item of work as directed by Engineer-in-charge	RM	303.00
925	TBSC-J.IV-03	S&F premium make CPVC Pipes of 28.60mm OD Pipe - SDR 13.5 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and	RM	382.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		conveyance of all materials to site, all operational, incidental , labour charges, etc. complete for finished item of work as directed by Engineer-in-charge		
926	TBSC-J.IV-04	S&F premium make CPVC Pipes of 34.90mm OD Pipe - SDR 13.5 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental , labour charges, etc. complete for finished item of work as directed by Engineer-in-charge	RM	579.00
927	TBSC-J.IV-05	S&F premium make CPVC Pipes of 41.30mm OD Pipe - SDR 13.5 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental , labour charges, etc. complete for finished item of work as directed by Engineer-in-charge	RM	832.00
928	TBSC-J.IV-06	S&F premium make CPVC Pipes of 54mm OD Pipe - SDR 13.5 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental , labour charges, etc. complete for finished item of work as directed by Engineer-in-charge	RM	1,361.00
929	TBSC-J.IV-07	S&F premium make CPVC Pipes of 15.90mm OD Pipe - SDR 11 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental , labour charges, etc. complete for finished item of work as directed by Engineer-in-charge	RM	239.00
930	TBSC-J.IV-08	S&F premium make CPVC Pipes of 22.20mm OD Pipe - SDR 11 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental , labour charges, etc. complete for finished item of work as directed by Engineer-in-charge	RM	313.00
931	TBSC-J.IV-09	S&F premium make CPVC Pipes of 28.60mm OD Pipe - SDR 11 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and	RM	410.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Schedule d Rate
		conveyance of all materials to site, all operational, incidental , labour charges, etc. complete for finished item of work as directed by Engineer-in-charge		
932	TBSC-J.IV-10	S&F premium make CPVC Pipes of 34.90mm OD Pipe - SDR 11 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental , labour charges, etc. complete for finished item of work as directed by Engineer-in-charge	RM	628.00
933	TBSC-J.IV-11	S&F premium make CPVC Pipes of 41.30mm OD Pipe - SDR 11 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental , labour charges, etc. complete for finished item of work as directed by Engineer-in-charge	RM	900.00
934	TBSC-J.IV-12	S&F premium make CPVC Pipes of 54mm OD Pipe - SDR 11 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental , labour charges, etc. complete for finished item of work as directed by Engineer-in-charge	RM	1,481.00

NOTE: All the items to be used on work are of first quality & ISI and as approved by the Engineer In charge of the work.

1	RATES
a	All the prices of the material given in this section are excluding taxes but including cost of loading, cost of conveyance, unloading & stacking
b	Supply Rates for all the materials are basic rates based on market rates/quoted rates/derived rates, excluding Taxes.
c	The applicable GST (works contract) shall be added at applicable rate in Part B of the estimates.
2	Coloured porcelain items: 50% extra may be allowed on basic cost of white porcelain items excluding fittings
3	SSR Rates for Sanitary & water supply items are purely for guidance for the officers for preparation of estimates vide Para 113 of APPWD code. Authority who prepares the estimate is however responsible for proper rates as envisaged in Para 45 of APPWD code.
LEGEND	
"TBSP" -A.I-01	
"TBSP" -C.I-22	
"TBSP" -D.III-14	
TBSP - Denotes Plumbing item in the Telangana Buildings SoR	
A.I/ C.IV - Denotes the Section & Sub-section	
01/22 - Denotes the serial number of the item	

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
A	SECTION	S.W.G. PIPES & FITTINGS
		(Landing cost - including material VAT/ loading/ cost of conveyance/ unloading & stacking)
I	SUB-SECTION	SUPPLY & LAYING OF SWG PIPES - Any ISI Brand
II	SUB-SECTION	S.W.G. FITTINGS - Any ISI Brand
C	SECTION	CENTRIFUGAL CI PIPES & FITTINGS - IS : 1729
I	SUB-SECTION	SUPPLY & LAYING OF CAST IRON PIPES - BIC/ NECO/ Jayaswal Neco
II	SUB-SECTION	SUPPLYING & LAYING OF C.I. FITTINGS - BIC/ NECO/ Jayaswal Neco
D	SECTION	CENTRIFUGAL CI PIPES & FITTINGS - IS : 3989
I	SUB-SECTION	SUPPLY OF CENTRIFUGAL CI PIPES - BIC/ NECO/ Jayaswal Neco
		HUBLESS CENTRIFUGAL CI PIPES - BIC/ NECO/ Jayaswal Neco
II	SUB-SECTION	SUPPLY OF C.I. SPUN FITTINGS - BIC/ NECO/ Jayaswal Neco
E	SECTION	VITREOUS CHINAWARE - SANITARY APPLIANCES
I	SUB-SECTION	INDIAN WATER CLOSETS - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA/Jaquar / Somany, Watertec, Kerovit by Kajaria
II	SUB-SECTION	FLOOR MOUNTED EWC - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA/Jaquar / Somany, Watertec, Kerovit by Kajaria
III	SUB-SECTION	WALL MOUNTED EWC - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA /Jaquar/ Somany, Watertec, Kerovit by Kajaria
IV	SUB-SECTION	CISTERNS FOR WATER CLOSETS - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA /Jaquar / Somany, Watertec, Kerovit by Kajaria
V	SUB-SECTION	PLASTIC SEATS FOR WATER CLOSETS - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA /Jaquar / Somany, Watertec, Kerovit by Kajaria
VI	SUB-SECTION	WASH HAND BASINS - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA /Jaquar / Somany, Watertec, Kerovit by Kajaria/ DEC Industries PVT LTD
		SINKS - Goel Sinks, Futura
VII	SUB-SECTION	URINALS - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA /Jaquar / Somany, Naturesani, Watertec, Kerovit by Kajaria, Bandhan, Merino
F	SECTION	CP FITTINGS - TAPS/ FAUCETS & ACCESSORIES
I	SUB-SECTION	TAPS&FAUCETS - BIB TAPS - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware - PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ H & R Johnson, Karla / Essco / Somany/Kingston/Prayag Polymer/KUNCHAL (Aluminium Udyog)/M/s Sumo Polyplast Pvt. Ltd (Sumolex), Watertec, Ambani, Kerovit by Kajaria, Austro,/ ESS ESS/ BATHSENSE/ ROYALE/Futura/Player, DEC Industries
II	SUB-SECTION	TAPS&FAUCETS - PILLAR TAPS - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware- PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ H & R Johnson, Karla / Essco / Somany/ Kingston/Prayag Polymer/ KUNCHAL (Aluminium Udyog)/ M/s Sumo Polyplast Pvt. Ltd (Sumolex), Watertec, Ambani, Kerovit by Kajaria, Austro/ ESS ESS/ BATHSENSE/ ROYALE/Futura/Player, DEC Industries
III	SUB-SECTION	TAPS&FAUCETS - OTHER TAPS & SPOUTS - Seiko/ Senior/ Nice/ Senior/ Nice/CERA/ Hindware - PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ H & R Johnson, Karla / Essco /Somany/ Kingston/Prayag Polymer/ KUNCHAL (Aluminium Udyog)/ M/s Sumo Polyplast Pvt. Ltd (Sumolex) Watertec, Ambani, Kerovit by Kajaria, Austro/ ESS ESS / BATHSENSE/ ROYALE/Futura/Player, DEC Industries
IV	SUB-SECTION	STOP & ANGLE VALVES - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware - PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ H & R Johnson, Karla / Essco / Somany/ Kingston/Prayag Polymer/ KUNCHAL (Aluminium Udyog), Watertec, Ambani, Kerovit by Kajaria, Austro/ ESS ESS/ BATHSENSE/ ROYALE, Futura/Player, DEC Industries

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
V	SUB-SECTION	COMBINATION FAUCETS - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware - PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ H & R Johnson, Karla / Essco / Somany/ Kingston/Prayag Polymer/ KUNCHAL (Aluminium Udyog) Watertec, Ambani, Kerovit by Kajaria, Austro / ESS ESS/ BATHSENSE/ ROYALE/Futura/Player, DEC Industries
VI	SUB-SECTION	SHOWERS & FITTINGS - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware - PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ H & R Johnson, Karla / Essco / Somany/ Kingston/Prayag Polymer/ KUNCHAL (Aluminium Udyog), Watertec, Ambani, Kerovit by Kajaria, Austro / ESS ESS/ BATHSENSE/ ROYALE/Futura/Player, DEC Industries
VII	SUB-SECTION	MISCELLANEOUS CP FITTINGS - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware- PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ H & R Johnson, Karla / Essco / Somany/ Kingston/Prayag Polymer/ KUNCHAL (Aluminium Udyog), Watertec, Ambani, Kerovit by Kajaria, Austro / ESS ESS/ BATHSENSE/ ROYALE/Futura/Player, DEC Industries
G	SECTION	G.I. PIPES & FITTINGS
I	SUB-SECTION	G.I. PIPES - Tata/ JSW/ Oswal/ Zenith
II	SUB-SECTION	G.I. FITTINGS - HB / Kirti/ R-Brand
III	SUB-SECTION	BRONZE (COPPER ALLOY) VALVES - Zoloto/ R-Brand
H	SECTION	PVC PIPES & FITTINGS
I	SUB-SECTION	PVC PIPES - Prince/Sudhakar/Kisan/Supreme/ Astral/ Finolex/ Ajay/ Ashirvad/Birla Aerocon/TRUFLO by Hindware/Prayag Polymer, Watertec, Austro, Nandi/ APOLLO PIPES LTD / DEC Industries PVT LTD/Vectus/Suki, Flowkem
		PVC - O PIPES - CCAL, ORIPLAST
		UPVC pipes - Prince/Sudhakar/Kisan/Supreme/ Astral/ Finolex/ Ajay/ Ashirvad/Birla Aerocon/TRUFLO by Hindware/Prayag Polymer, Watertec, Austro, Nandi/ APOLLO PIPES LTD / DEC Industries PVT LTD/Vectus/Suki, Flowkem
II	SUB-SECTION	PVC FITTINGS- Prince/Sudhakar/Kisan/Supreme/ Astral/ Finolex/ Ajay/ Ashirvad/ Birla Aerocon/ TRUFLO by Hindware/Prayag Polymer, Watertec, Austro, Nandi/ APOLLO PIPES LTD / DEC Industries PVT LTD/Vectus/Suki, Flowkem
III	SUB-SECTION	PVC PLUMBING ACCESSORIES - Prince/Sudhakar/Kisan/Supreme/ Astral/ Finolex/ Ajay/ Ashirvad/ Birla Aerocon/ TRUFLO by Hindware, Watertec, Austro, Nandi/ APOLLO PIPES LTD /Vectus
		PVC Tanks - Sintex, Aquatech, Nandi, Agarwal, TRUFLO by Hindware, Flowkem, OXYGEN
		PVC - LLC Cisterns - Parryware/ Slimlines/ CERA/ Hindware/Prayag Polymer/ APOLLO PIPES LTD
J	SECTION	MISCELLANEOUS ITEMS
I	SUB-SECTION	POLYETHYLENE-ALUMINIUM-POLYETHYLENE COMPOSITE PIPES - Kitec/ Kisan/ Uniflex/M/s Sumolex Polyplast Pvt. Ltd/ APOLLO PIPES LTD
II	SUB-SECTION	CPVC PIPES - Supreme/ Ashirvad/ Astral/ Prince / Kisan / Ajay/Birla Aerocon/ Hindware TRUFLO/Sudhakar/Prayag Polymer/ M/s Sumolex Polyplast Pvt. Ltd, Watertec, Ambani, Austro, Nandi/ DEC Industries PVT LTD , Suki
III	SUB-SECTION	PPR PIPES - Supreme/ Ashirvad/ Astral/ Prince/ Kisan / SFMC / KPT/ M/s Sumolex Polyplast Pvt. Ltd
IV	SUB-SECTION	CPVC PIPES - Supreme/ Ashirvad/ Astral/ Prince / Kisan / Ajay/Birla Aerocon/ Hindware TRUFLO/Sudhakar/Prayag Polymer/ M/s Sumolex Polyplast Pvt. Ltd, Watertec, Ambani, Austro, Nandi/ DEC Industries PVT LTD , Suki

ELECTRICAL ITEMS

BRIEF NOTE

SECTION NO.1

This section contains basic requirements for M.S. / PVC conduit and its accessories as well as switches and its accessories, Casing and Caping, Modular Boxes, Switches and Cover Frames and Copper Cables.

SECTION NO.2

In this section the switch gear such as Panel mounting switch disconnecter fuse units, Changeover Switches, Voltage Surge Protectors, Panel mounting ACBs, MCCBs, MCBs, RCCB's, RCBO's, DBs, Porcelain Rewirable and HRC fuse units, Raising Mains and Busduct.

SECTION NO.3

This section contains the LED luminaires and lamps such as Street light/Post Top Lanterns and its accessories, Internal Luminaries, Automatic Street Light Controls, Solar Street Lights

SECTION NO.4

This section consists of LT and H.T. aluminium UG cables including accessories like Glands, Aluminium / Copper lugs, Heat shrinkable LT/HT Cable Joints, end terminations, double walled Corrugated HDPE Pipes etc.

SECTION NO.5

This section contains Ceiling Fans, Exhaust Fans, Water heaters, Motor pump sets and control panel for motors, UPVC pipes and fittings.

SECTION NO.6

This section contains Air Conditioners, Stabilizers and Access Control System.

SECTION NO.7

This section contains Swaged / Octagonal / Conical Poles / GRP Poles including High Mast Poles, LT Line Materials and Lightning protection system, Sub station equipment and Transformers

SECTION NO.8

This section contains Networking wires, switches and its accessories, and EPABX.

SECTION NO.9

This section contains miscellaneous items, Legend Plates etc.,

SECTION NO.10

This section contains FIRE Alarm system, detection and extinguishers.

SECTION NO.11

This section contains Generators.

SECTION No.12

This section contains UPS Systems, Battery Racks and Servo Stabilizers

SECTION No.13

This section covers Public Addressing Systems.

SECTION No.14

This section contains Old Material Rates.

GUIDELINES FOR ELECTRICAL WORKS

PREFACE

Electrical supply and installation are an important and essential part of Building Services. Right from initial planning, design, selection of material, installation / method of construction; to testing, commissioning and maintenance; every aspect is governed by statutory provisions referring various Standards and Codes. All such norms are oriented to minimize risk, provide safe use, operation, functionality, and convenience throughout service life.

Any lapse in any of the above aspect may lead to severe effects on human life and devastation of assets. Occasions of electrical fires are increasing with the increasing use and electrical gadgets. Unfortunately, still it is seen that Electrical Installation is given least importance. Qualities and safeties are compromised out of connivance or lack of technical knowledge. Many times, electrical work gets executed through non-qualified persons not having required knowledge and permit in that regard. Such hired persons work on labour basis to whom non-standard material is supplied without any base of 'Design'. There is no person to supervise quality and safety aspects, most of which remains 'concealed' as the work gets completed.

In case of High-Rise buildings norms are more stringent. Fire hazard is more prominent risk factor as evacuation in high-rise building is a challenging task. Part 3 section 7 of NEC gives special guidelines in this regard.

The person who uses, operates electrical installation is not expected to know the real technical aspects of design, material used, quality of work, adherence to safety, compliance with statutory provisions. Under the circumstances it has become a need to set base line parameters. Plug the loop holes, get the work done adhering to norms and standards and make someone responsible so that in case of any lapse /mishap such person / agency can be made answerable.

The following guidelines /recommendations / mandates are basically given to execute work of Electrical Installation.

ARCHITECTURAL / CIVIL WORK PROVISIONS RELATED TO ELECTRICAL INSTALLATION

1.1 Architectural Planning requirements

At planning stage Architect shall discuss and consider requirements of Electrical Consultant / Contractor in respect with site and location*of construction and in respect with drawings of building requirement of spaces, clearances, approach ways, raceways, shafts, recommended wall thickness, required provisions for prevention from fire hazard likely to originate from electrical installation.

*If proposed construction is within vicinity of existing over-headline, underground cable compliance with Regulation 63 of CEA Safety Regulations shall be checked prior to commencement of any work on site.

Architect shall incorporate following points in the drawings related to services as per the applicable requirements.

1.1.1 Site Plan

Site plan shall show existing overhead electrical lines / underground cables if any and proposed construction within the boundaries of the area to be developed.

1.1.2 Routes and service entry points

Architectural drawings shall clearly mark electrical service entry points, cable routes below ground, through the building structure, so that detailing in electrical shop drawings will restrict the work within specified route and no conflict shall occur with other building utility service. The drawings shall specify required horizontal and vertical clearance to be maintained between other utility services.

1.1.3 Locations of Electrical Panels

Locations and position for main and sub electrical panels shall be marked, and adequate space / room shall be allocated considering dimensions of panel, clearance in front, side and back. Consideration shall be given to space required for opening of the panel doors / racking out breakers, and approach boundaries (Refer NEC Part1 / section 24 Electrical Safety), and accessibility. Floor mounting panels shall preferably be located in separate Electrical Panel Rooms having outside door opening, required fire rating (two hours if not specified) and ventilation arrangement.

NOTE - Special consideration shall be given to this point in case of High-Rise buildings.

Electrical meter rooms

Meter rooms shall be separate. It shall be planned to have sufficient head room and clear space in front of meters, control switches (at least 1m). Space on wall shall be sufficient to accommodate required number of meters at suitable height so that readings can be taken without aid of any tackle. Also, the switchgears shall be at least 0.5 m above floor level and within such height to have an easy access for operation. The meter room shall be well ventilated, protected from external influences like sun, rain, water seepages, entry of rodents. Location of meter room shall be suitably adjacent or nearest to cable duct / shaft / vertical route of mains.

NOTE - Meter rooms shall not be located below staircases where above requirements could not be complied with.

1.1.5 Movement of heavy / bulky electrical equipment

For installation of electrical equipment within building which is likely to be heavy / bulky in size or removing it for maintenance, provision of adequate passages, stair ways or any alternate provision for its shifting / movement shall be considered.

1.1.6 Shafts /ducts

There shall be provision of shafts with required fire rating (2 hours if not mentioned specifically) for vertical electrical distribution which shall preferably be adjacent to electrical panels. Shafts shall be separate for electrical HT cables, LT power cables / bus-bar trunking and cable work of Extra Low Voltage systems like telephones, security system, fire alarm, signalling, BMS or data networking etc. If independent shaft is not possible, there shall be an arrangement for segregation in between, which shall have required fire rating same as that of shaft. No other utility service shall run through these shafts. Shafts shall be accessible at all levels with doors having fire rating as that of shaft and shall not open in fire escape staircase. All shafts shall have fire prevention provision as per National Building Code and fire safety requirements of local statutory authorities.

NOTE -As per CEA Reg.36 provision in respect of independent electrical service shaft is mandatory for all buildings above 15m height (High-Rise buildings).

1.1.7 Interior design and Electrical Layouts

It is recommended to prepare interior layouts so as to plan electrical points, locations of switch boards to suite the aesthetics, functionality as well as for comfort and ease of operation.

1.1.8 Aesthetics and Electrical Safety

To avoid conflicts between Architect from perspective of aesthetic and person executing electrical installation work from the point of view of safety requirements of electrical work, convenience and ease of installation and further maintenance depending on type of wiring (concealed / surface / hybrid), location of distribution boxes, requirement of under-floor trunking / false flooring / false ceiling, wall partitions and openings to enter into / work within as per the need. These points shall be decided at planning stage.

1.1.9 Illumination

Within interior work number, type, size, and location of luminaries shall be decided and agreed upon mutually between Architect and Electrical Agency, considering technical parameters of lux level, CCT, heat dissipation, accessibility and maintainability.

1.1.10 Ceiling Fans

Location of ceiling fans shall suite recommended minimum clearance between ceiling / false ceiling and fan blade (225mm), floor level and fan blade(2400mm).Sweep of fan blades shall not obstruct light source. Location and size of fan shall also suite utility from the point of view of users and aesthetically match with false ceiling design.

NOTE : Sometimes due to afterthought provision of false ceiling, it creates problems affecting required clearances. Under some cases, replacement of down rod with suitable length may solve problem but in case of limited ceiling height, It is not possible.

1.1.11 Exhaust fans

Wherever provision of exhaust fans is there, cross ventilation shall be considered to allow sufficient fresh air to enter into particular envelop, e.g. for toilets where exhaust fans are proposed, door under cuts or louvers preferably at lower level for cross ventilation shall be provided.

NOTE : Non provision of entry for fresh air creates negative pressure within the envelope increasing load on exhaust fan resulting into heating and subsequent failure.

1.1.12 Earthing

Location of earthing pits shall be shown on drawings so that those shall always remain open and accessible for testing and maintenance throughout the service period.

1.1.13 Restricted Access

Areas requiring restricted access to designated person, authorized to carry out electrical work therein shall be provided with necessary arrangements.

1.1.14 Sub stations / Generators / Battery rooms

Location of required civil structure shall be considered in advance with required height of room, door openings, firefighting system, ventilation etc.

1.2 Civil Planning and Constructional Requirements

It is important to plan activities of civil construction and electrical works in detail on bar chart or similar tools available in project planning. The bar chart shall be updated and coordination be monitored to avoid conflicts, breakages and reworking. Following points give general guidelines.

1.2.1 Fire rating

The electrical panel rooms, doors, segregation arrangement within shaft shall have fire rating of 2 hours or as per requirements mentioned under NBC, Central Electricity Authority (measures related to Safety and Electric Supply) Regulations, 2010 and further amendments.

1.2.2 Shafts/ Ducts /Chambers

Design and location of cable ducts, shafts, chambers, their covers, and entry points, shall be as per shop drawings provided by electrical agency and shall be in consultation with, considering further aspects of maintenance / repairs / replacement. Size of chambers shall be in consideration with bending radii of cables. At every flooring level, there shall be a provision to seal these shafts, so that in case of fire, it shall not spread, or smoke shall not pass from one floor to other.

1.2.3 Openings and covers

Manholes / opening of chambers shall not be less than 650mm x 550mm or 650mm in dia., where opening is intended for entry of person. Covers of manholes, chambers shall bear sufficient strength to withstand loads likely to be imposed on the structure. Covers shall be marked with the name of the service.

Openings / covers of Junction boxes / draw-in boxes / accessories in conduit systems with inspection openings shall always be accessible.

1.2.4 Enclosures for underground cables

Pipes to be used for cable as enclosures shall be of required diameter so that cable can pass through or removed from easily and have sufficient mechanical strength and shall be erected at required depth to suite requirements of IS 1255.

1.2.5 Wall thickness

Walls shall be of sufficient thickness to accommodate concealed boxes / switchboards / distribution boxes. So that installation of boxes will not affect strength of wall. Additional strengthening shall be considered if necessary.

NOTE : Depth of box may be 60 mm or vary depending on manufacturer's design. Under circumstances in 4"/100 mm wall it is not possible to accommodate these boxes back-to-back. Staggering may solve problem to certain extent.

1.2.6 Structural strength

In Wiring Installation where Cable Ladder, Tray system is used for cable management, its structure along with the load of cables which it is going to support, is likely to impose load on the primary structure of building. This situation occurs when supports of this system are fixed on building structure. For this building structure shall have capacity to bare the load.

At some locations there are chances of conduits getting crowded endangering structural strength due to number of circuits entering / passing out from the particular DB / panel. This situation may occur in beam, slab, and wall. If such situation is unavoidable necessary measures may be required to be taken to retain structural strength.

1.2.7 Sleeves / core cutting

As far as possible sleeves shall be got erected for entry of wires / cables through wall, flooring, RCC structure during construction to avoid core cutting, damages and reworking at finishing stage. Sometimes core cuttings may be required which shall be done with the consent of structural engineer and under supervision of civil engineer.

1.2.8 Water leakages / seepages

Design shall take into consideration possible seepages, leakages, accumulation, and ground in-surge of water, which is hazardous to electrical installation. Required provisions shall be made at such locations to prevent and work shall be executed with due care.

1.2.9 Bath rooms/wash rooms

Within bathrooms / washrooms, location of showers, faucets shall be such that during use, water shall not splash on switch boards / electrical outlets / fittings.

1.2.10 Tandems in Flat Slab post tension structures

For flat slab post tension structure's locations of tandems marking shall be made to avoid puncture of / damage to tandems during electrical construction activity.

1.2.11 Earthing

Any construction work, including excavation, subsequent to construction of earthing electrodes ; it shall not disturb / damage any part of earthing system. Any civil work on construction site shall not cause cover-up / concealing of any portion of electrical earthing system without notice and consent of person In-Charge of electrical work.

1.2.12 Sub stations / Generators / Batteries

Trenches, ventilation, approach roads shall be provided as per necessity.

2. ELECTRICAL PROVISIONS**2.1 Statutory Obligations - Appointment of Licensed Electrical Contractor**

Reg .29(1) shall be strictly followed by the Developer and work shall be got done through Licensed Electrical Contractor who shall submit Test Report of the work carried-out by him.

Developer may take undertaking from the Licensed Electrical Contractor, who shall be responsible to do the work through the qualified workmen having required permit in that regard. He shall also see that the material to be used, work and workmanship shall conform to respective norms, standards, and Regulations.

NOTE-All hidden work shall be checked for conformity with the standards prior to get it concealed, shall be certified by the contractor.

2.2 Statutory Obligations-Approvals /Permissions / Licenses

Required approvals shall be taken as per related Rules and Regulations mentioned below prior to the commissioning and handing over the installation for beneficial use.

- Central Electricity Authority (measures related to safety and electric supply) Regulations 2010 and amendments 2015, 2018
- Reg. 32 - Generator Inspection and approval for commissioning.

- Reg. 36 - Multi-storied building (height above 15m): inspection and NOC for commencement of supply
- Reg. 43 -Transformer sub-station or any installation above 660V : inspection and approval before commencement of supply

See Annexure C of above regulations for extract of Regulations.

2.3 Material

Material used for Electrical Installation shall conform to the respective Indian standards or International standards where relevant Indian Standards are not available.

Technical Specification of material shall strictly adhere to the design, based on load, use, external influences and safety.

2.4 Wiring Installation

Electrical Installation shall conform to provisions from related sections of National Electrical Code (NEC) and National Building Code (NBC). See Annexure A for minimum / basic requirements from the point of view of Safety and functionality.

2.5 Transformer sub-station

Transformer sub-station providing supply to the building if located within building shall either use dry type transformer or a transformer filled with Synthetic Ester. Transformer filled with Natural ester shall be used only if transformer is sealed (without breather). For Transformer installed in separate room detached from building structure 7.5m away Mineral oil may be allowed.

2.6 Generator standby supply

For every high-rise building there must be a provision of generator supply as a standby arrangement which shall be of adequate capacity to cater load of all emergency systems for required time. Location and system of supply shall be such that functioning, and purpose of Generator will not be affected due to emergency like fire in building. If fire authority requires standby supply arrangement for fire-fighting system also, provision of generators shall be made accordingly.

2.7 Handing over Documents

It shall be a part of obligation on the developer to handover the documents belonging to the prospective owner for his information and which he will need him for reference and maintain as a record.

2.8 MCBs

For lighting circuit 6A MCB and for power circuit of power point 16A MCB shall be used. For lighting circuits MCBs of B series may be used. For independent circuit of plug points C series MCB shall be provided. Circuits providing supply for appliances like Air-Conditioner / water-pump shall be provided MCBs of 'C' series. AC above 1.5 TR maybe provided with MCB of 20 /25 A rating.

2.9 RCDs

Complete electrical installation must be protected against electrical shock by provision of Residual Current Device (also referred as ELCB/RCCB) having sensitivity of 30mA. RCDs may be provided more than one at suitable locations, to retain supply redundancy. In three phase DBs per phase protection maybe provided. For installation having load 10kw and above, it is also recommended to

provide RCD of 300mA sensitivity at the source / point of supply to provide protection against Fire due to leakage currents.

2.10 Main switchgears

Depending on load provision of MCCBs, Circuit breakers shall be made with precise rating of overload, short circuit etc.

3. Provision in respect of High-Rise building

3.1 Supply isolation during Emergency

Sub Regulation (3) of CEA Regulation No.36 provides for arrangement to completely isolate the supply at the time of emergency. It shall be interpreted as below:

3.2 The provision of a device to isolate complete supply, also called Fireman's Switch, is aimed at restricting further danger of short circuits due to fire and spread of fire and shock hazard, restriction on use of Lifts and any other activity running on electrical supply which may aggravate the situation. However, supply to emergency services like rescue operation, Fire- Fighting shall not get affected with the operation of this control.

3.3 Suitable arrangement shall be done at the point of supply to separate supply of emergency services make arrangements to identify and mark with instructions

CEA (Measures related to Safety and Electric Supply) Regulations 2010 made under section 53 read with section 177 of Electrical Act 2003 Regulation 29(1):

No electrical installation work, including additions, alterations, repairs and adjustments to existing installations, except such replacement of lamps fans, fuses, switches, domestic appliances of voltage not exceeding 250V and fittings as in no way alters its capacity or character, shall be carried out upon the premises of or on behalf of any consumer, supplier, owner or occupier for the purpose of supply to such consumer, supplier, owner or occupier except by an Electrical Contractor licensed in this behalf by the State Government and under the direct supervision of a person holding a certificate of competency and by a person holding a permit issued or recognised by the State Government.

3.4 Regulation 12(1):

All electric supply lines and apparatus shall be of sufficient rating for power, insulation and estimated fault current and of sufficient mechanical strength, for the duty cycle which they may be required to perform under the environmental conditions of installation, and shall be constructed, installed, protected, worked, and maintained in such a manner as to ensure safety of human beings, animals and property.

3.5 Regulation 12(2):

Save as otherwise provided in these regulations, the relevant code of practice of The Bureau of Indian Standards or National Electrical Code, if any, may be followed to carry out the purposes of this regulation and in the event of any inconsistency, the provisions of these regulations shall prevail.

3.6 Regulation 12(3):

The material and apparatus used shall conform to the relevant specifications of the Bureau of Indian Standards or International Electro-Technical Commission where such specifications have already been laid down.

3.7 Regulation12(4):

All electrical equipment shall be installed above the Mean Sea level (MSL) as declared by local Municipal Authorities and where such equipment is to be installed in the basement, consumer shall ensure that the design of the basement should be such that there is no seepage or leakage or logging of water in the basement.

3.8 Regulation36 Provisions for supply and use of electricity in multi-storeyed building more than15 meters in height: Regulation36 (3)

The supplier or owner of the installation shall provide at the point of commencement of supply a suitable isolating device with cut-out or breaker to operate on all phases except neutral in the 3-phase,4-wire circuit and fixed in a conspicuous position at not more than1.70meters above the ground so as to completely isolate the supply to the building in case of emergency.

SYSTEM OF DISTRIBUTION OF WIRING

1. The wiring shall be done from a distribution system through main & Sub-distribution boards.
2. The system design and location of DBs will be properly selected.
3. Each main and sub-distribution boards shall be controlled by an incoming circuit breaker.
4. For Non-residential buildings, as far as possible, DBs shall be separate for light and power.
5. Only MCCB / MCBs shall be used.
6. "Power" wiring shall be kept separate and distinct from light wiring from the level of circuits.
7. Conduit for light and power wiring shall be separate
8. Essential / Non-essential/ UPS distribution : Each System will have a completely independent and separate distribution system starting from the main switch board up to final wiring point for each system.
9. No switch board will have more than one source.
10. Each main distribution board / Sub-distribution board will have spare outgoing MCBs for future expansion.
11. I) All switch boards shall be installed at 1.2 to 1.4 Mt height from Finished Floor level as per the disable standards.
 II) all 6A sockets, 16A / 6A sockets shall be installed at the following positions, unless other wire specified.
 - a) 1. NRB - 30 cm above floor level.
 2. RB - 30 cm above floor level until unless specified by Engineer -in charge.
 - b) Kitchen - 30 Cm above platforms and away from sink / stove.
 - c) Bath room - No socket outlet is permitted for connecting a portable appliance there
 - d) Power socket may be provided above 2Mts for fixed appliance and at least 1.0 m away from the shower.
1. Sub Main Wiring :-
 Sub Main wiring shall mean the wiring from one main DB to other.
2. Circuit Wiring :-

Circuit wiring shall mean the wiring from the DB to the 1st tapping point inside the switch board, from where point wiring starts.

3. Service Mains:-

Service Mains shall mean the wiring from the supply pole / feeder pillar of SPDCL / NPDCL to main panel / main distribution board.

4. Point Wiring:-

A point wiring shall include necessary wiring to the following outlets from the controlling switch.

- a) Ceiling rose (in case of ceiling / exhaust fan points, light fittings and call bells)
- b) Ceiling rose (in case of ceiling fan)
- c) Lamp holders

5. Point wiring for socket outlet points-

- a) 10A socket on common switch board i.e including required wire leads.
- b) 10A - Separate Socket point i.e socket on separate board including wiring is called 6A separate socket point.
- c) 16A / 10A socket point

16A point wiring will be measured on linear basis from respective tapping point to the 16A socket.

6. Twin Control light Point:-

A Light point controlled by two numbers of two way switches. It is used in bed rooms, stair case points. The rates shall be 1.5 times normal light / fan point

7. Multiple controlled call bell point wiring.

In case of call bell points with a single call bell controlled from one outlet is same as light point.

In case of call point with single call bell controlled from more than one place, the point shall be measured in parts i.e

- a) from call bell outlet to one of the nearest ceiling rose meant for connection to bell push treated as one point.
- b) Other bell pushes shall be measured the linear length as run of mains.

8. Wiring System:-

“ FRLSH / HFFR multi strand flexible copper cable are permitted to be used”.

a) Wiring shall be done only with minimum 1.5 sq mm flexible copper wire for light, fan, exhaust fan , call bell, 6A socket etc.

b) Phase neutral and earth shall be same in size (i.e sqmm).

c) In wiring, no joints in wiring will be permitted anywhere except in switch box or at point out let

Colour Coding :

Phase / Live - Red / yellow / Blue

Neutral - Black

Earth - Green

d) For light / bell wiring shall be two wire system.

e) For ceiling fan / exhaust fan / Separate socket wiring shall be three wire system .

Circuit main for switch boards:-

Circuit main for switch board shall be 3 runs of 2.5sqmm copper cable i.e for phase, neutral and earth. That is from DB to switch board.

Circuit Main for 16A socket :-

Circuit mains for 16A sockets shall be 3 runs 4.0sqmm from DB to 16A socket. Phase, neutral and earth conductor are equal in size (i.e sqmm).

Circuit Main for AC socket :-

Circuit mains for AC socket shall be 3 Runs of 6.0sqmm from DB to AC socket. Phase, neutral and earth conductor are equal in size (i.e sqmm).

Note: Power circuit rated more than 1KW, size as per calculations.

Capacity of Circuits :

- I Lighting circuits shall feed light / fan / call bell points. Each circuit shall not have more than 800W connected load or more than 10 points. In case of LED lights, where load per point may be less, number of points may be suitably increased.
- II Power circuit in NRB will have only one outlet per circuit.
- III Each power circuit in residential buildings can feed following outlets.
 - a) Not more than 2 Nos 16A socket outlets.
 - b) Not more than 4 Nos 6A/ 10A socket outlets.
 - c) Not more than 1 No 16A & 2Nos 6A outlets.
- IV. Load more than 1 KW shall be controlled by suitable rated MCB and cable size shall be decided as per the load calculations and length of circuit mains.
- V. Load shall be distributed equally among the three phases.

Mounting Height of light fixture / ceiling fans:-

- I Fittings shall be installed such that the lamp is at a height of 2.4 Mtr above floor level, unless otherwise directed by the Engineer-in charge.
- II Unless otherwise specified, all ceiling fans shall be hung 2.75 Mt above the floor.
- III All DBs shall be installed 5 Ft above the FFL.

Non- Metallic Conduit System:-

- I Recessed conduit work is generally suitable for all applications.
- II Surface conduit work may be adopted in places like workshops etc where recessed work may not be possible to be done.
- III Flexible Non-Metallic conduits shall be used only at terminations, wherever specified.

Note: Non-Metallic conduit shall not be used for the following applications.

1. In concealed / in accessible places of combustible constructions where ambient temperature exceeds 60°C.
2. In places where ambient temperature less than 5°.
3. For suspension of fixtures.
4. In areas exposed to sunlight.
5. Radius of conduit pipe shall not be less than 7.5 Cm.
6. No length of conduit shall have more than the equivalent of 4 quarter bends from outlet to outlet.
7. Conduit pipes shall be fixed by staples, base saddles, placed at not more than 50 cm apart

8. Saddles / Stapler shall be fixed at a distance of 15 cm from either side of the bends / JB/ Joints.

Trunking cable Management System:-

- i. This system using PVC trunking shall be adopted in residential buildings or office buildings where there is a need of tidy wiring system.
- ii PVC trunking for distribution of voice, Data and power should be used for cable management and should be compatible for adopting RJ45 Data socket and power socket or other wiring accessories like switches, indicators etc.
- iii Trunking shall have insulation rating of 5 Mega ohms.
Trunking shall have the following fire resistances characteristics
 - a. Operating temperature between - 40° C to 60° C
 - b. Glow wire test - 960° C
 - c. Oxygen index - 50 ± 5
 - d. UL 94 - VO
- iv PVC trunking shall be of good quality PVC, free from defects like deformation, unevenness, blisters, cavities etc.
- v. The thickness of the mini trunking and adoptable trunking shall be 1mm minimum.
- vi. Joints in casing and capping shall be rear fed or cut diagonally in longitudinal section, and shall be smoothed down by filling to make the joints a very close fit as far as possible and without burrs. They shall be screwed at joints with two or more screws as wood be necessary.
- vii Joints arising out of bends or diversion shall be done using standard accessories like internal angle, external angle, flat angle, flat junctions (T) and end caps.
- viii In no case the radius of curvature of the cable inside a bend shall be less than 6 times their overall diameter
- ix No Screws or nails shall be used for fixing PVC cover to the body.
- x Mini trunking shall be of such a design that it holds the wires inside the trunking body (casing) at suitable intervals, so that at the time of opening of the trunking cover (capping), the wires may remain in position in the trunking body (casing) and do not fall out.

Current Density:

Bus bars shall be of sufficient Cross section area so that a current density of 0.8A / sqmm (80A/Sqcm) is not exceeding at a nominal current rating for align bus bars.

1.2A / sqmm (120A / Sqm cm) for copper bus bars

Cross section of Bus bars:

Cross section of neutral bus bar shall be same as that of the phase bus bar.

Bus bar Clearances:-

1. The Minimum clearance to be maintained for enclosed indoor air insulated bus bars for medium voltage application shall be as follows.

Between Minimum Clearance

Phase to earth 26 mm

Phase to Phase 32 mm
2. All bus bars in a panel board shall be copper up to 500A , and aluminium for bus bars above 500A

Note 1: - For strip connection from bus bars to switch gear, the above clearance don't apply.

Note 2 :- The overlap of the bus bars at the joints shall be not less than area of cross section of bus bars.

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SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		SECTION - 1			
	1.1	M.S. CONDUIT PIPES			
	ELEC-1.1.1	Supply of ISI, ----- dia, 1.6mm thickness MS conduit pipe as per IS 9537 Part II / 1981. Makes : NAI / Bharath / GB / BEC			
1	a	20mm	1	Mtr	120.00
2	b	25mm	1	Mtr	153.00
3	c	32mm	1	Mtr	219.00
	ELEC-1.1.2	Supply of ISI, ----- dia, 2.0mm thickness MS conduit pipe as per IS 9537 Part II / 1981. Makes : NAI / Bharath / GB / BEC			
4	a	40mm	1	Mtr	365.00
5	b	50mm	1	Mtr	459.00
		HOT DIP GALVANIZED CONDUIT PIPES			
	ELEC-1.1.3	Supply of ISI, ----- dia, 1.6mm thickness hot dip galvanized conduit pipe as per IS 9537 Part II / 1981. Makes : NAI / Bharath / GB / BEC			
6	a	20mm	1	Mtr	193.00
7	b	25mm	1	Mtr	233.00
8	c	32mm	1	Mtr	359.00
	ELEC-1.1.4	Supply of ISI, ----- dia, 2.0mm thickness hot dip galvanized conduit pipe as per IS 9537 Part II / 1981. Makes : NAI / Bharath / GB / BEC			
9	a	40mm	1	Mtr	571.00
10	b	50mm	1	Mtr	665.00
	ELEC-1.1.5	Supply of ----- MS Junction box normal range big size long neck.			
11	a	19 / 20 mm	1	No	32.00
12	b	25 mm	1	No	37.00
13	c	32 mm	1	No	97.00
14	d	40 / 38 mm	1	No	140.00
15	e	50 mm	1	No	273.00
	ELEC-1.1.6	Supply of-----MS Junction deep box.			
16	a	20/25mm	1	No	87.00
17	b	32mm	1	No	153.00
18	c	40mm	1	No	186.00
19	d	50mm	1	No	226.00
	ELEC-1.1.7	Supply of-----MS Inspection Bends.			
20	a	19/20mm	1	No	29.00
21	b	25mm	1	No	32.00
22	c	32mm	1	No	70.00
23	d	40/38mm	1	No	109.00
24	e	50mm	1	No	233.00
	ELEC-1.1.8	Supply of-----MS Inspection Tee.			
25	a	19/20mm	1	No	32.00
26	b	25mm	1	No	35.00
27	c	32mm	1	No	96.00
28	d	40/38mm	1	No	116.00
29	e	50mm	1	No	239.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-1.1.9	Supply of-----MS Inspection Elbow.			
30	a	19/20mm	1	No	25.00
31	b	25mm	1	No	26.00
32	c	32mm	1	No	75.00
33	d	40/38mm	1	No	96.00
34	e	50mm	1	No	212.00
	ELEC-1.1.10	Supply of MS Inspection 10 Guage G.I. checknut size			
35	a	19/20mm	100	Nos	266.00
36	b	25mm	100	Nos	332.00
37	c	32mm	100	Nos	677.00
38	d	40/38mm	100	Nos	1023.00
39	e	50mm	100	Nos	1608.00
	ELEC-1.1.11	Supply of-----Saddles with Base.			
40	a	19/20mm	100	Nos	266.00
41	b	25mm	100	Nos	279.00
42	c	32mm	100	Nos	512.00
43	d	40/38mm	100	Nos	877.00
44	e	50mm	100	Nos	1110.00
	ELEC-1.1.12	Supply of-----20 guage Saddles.			
45	a	19/20mm	100	Nos	146.00
46	b	25mm	100	Nos	186.00
47	c	32mm	100	Nos	306.00
48	d	40/38mm	100	Nos	405.00
49	e	50mm	100	Nos	525.00
	ELEC-1.1.13	Supply of-----16 Guage socket coupler.			
50	a	19/20mm	12	Nos	76.00
51	b	25mm	12	Nos	89.00
52	c	32mm	12	Nos	207.00
53	d	38mm	12	Nos	372.00
54	e	40mm	12	Nos	212.00
55	f	50mm	12	Nos	611.00
	ELEC-1.1.14	Supply of-----Ball Socket.			
56	a	19mm	12	Nos	319.00
57	b	25mm	12	Nos	473.00
	1.2	PVC CONDUIT PIPES & CASING AND CAPING			
	ELEC-1.2.1	Supply of ISI -----outer dia heavy grade with IS:9537 part 3 rigid PVC pipe. Makes : Sudhakar / Finolex / Modi / VIP / Precision / Universal / Million Plast / Gold / Polycab / DEC / Beljin / Champion / Austro			
58	a	20mm	1	Mtr	32.00
59	b	25mm	1	Mtr	43.00
	ELEC-1.2.2	Supply of ISI ----- outer dia medium grade, with IS:9537 part 3 rigid PVC pipe. Makes : Sudhakar / Finolex / Modi / VIP / Precision / Universal / Million Plast / Gold / Polycab / DEC / Beljin / Champion / Austro			
60	a	20mm	1	Mtr	23.00
61	b	25mm	1	Mtr	31.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
62	c	32mm	1	Mtr	50.00
63	d	40mm	1	Mtr	68.00
64	e	50mm	1	Mtr	97.00
	ELEC-1.2.3	Supply of -----FRPP Flexible Conduit Pipe. Make: Precision or its equivalent as approved by the department			
65	a	20mm	1	Mtr	16.00
66	b	25 mm	1	Mtr	19.00
67	c	32 mm	1	Mtr	31.00
68	d	40 mm	1	Mtr	43.00
69	e	50 mm	1	Mtr	69.00
	ELEC-1.2.4	Supply of ----- PVC Flexible Couplings. Make: Precision or its equivalent as approved by the department			
70	a	19/20mm	1	No	14.00
71	b	25mm	1	No	18.00
72	c	32mm	1	No	33.00
73	d	38/40mm	1	No	36.00
74	e	50mm	1	No	72.00
	ELEC-1.2.5	Supply of -----width Casing and Caping. Makes : Modi with ISI or its equivalent make as approved by the department			
75	a	19/20mm	1	Mtr	31.00
76	b	25mm	1	Mtr	39.00
77	c	32mm	1	Mtr	44.00
78	d	38/40mm	1	Mtr	74.00
79	e	50mm	1	Mtr	102.00
	ELEC-1.2.6	Supply of----- PVC Junction Boxes Normal. Makes : Sudhakar / Finolex / Modi / VIP / Precision DEC / Beljin / Champion / Austro			
79	a	19 / 20mm	1	No	24.00
80	b	25 mm	1	No	26.00
81	c	32 mm	1	No	45.00
82	d	40 mm	1	No	48.00
83	e	50 mm	1	No	67.00
	ELEC-1.2.7	Supply of PVC Junction Boxes Deep size Makes : Sudhakar / Finolex / Modi / VIP / Precision / DEC / Beljin / Champion / Austro			0.00
84	a	19 / 20mm	1	No	30.00
85	b	25 mm	1	No	33.00
86	c	32 mm	1	No	53.00
87	d	40 mm	1	No	56.00
88	e	50 mm	1	No	82.00
	ELEC-1.2.8	Supply of ---- dia Medium grade PVC Bends. Makes : Sudhakar / Finolex / Modi / VIP / Precision / DEC / Beljin / Champion / Austro			
89	a	19 / 20mm	1	No	7.00
90	b	25 mm	1	No	10.00
	ELEC-1.2.9	Supply of ----- dia Heavy Grade PVC Bends.			0.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Makes : Sudhakar / Finolex / Modi / VIP / Precision / DEC / Beljin / Champion / Austro			
91	a	32 mm	1	No	23.00
92	b	40 mm	1	No	26.00
93	c	50 mm	1	No	37.00
94	ELEC-1.2.10	Dummy Cover to PVC junction boxes	1	No	6.00
	Note:	If Non-ISI Pipes / Non-ISI Casing & caping are used during execution of work, for arriving the Non-ISI Pipe / Non-ISI casing & caping rates 15% may be deducted from the finished Cost data of ISI Pipe.			
	1.3	HOT DIP GALVANIZED METAL BOXES (MODULAR)			
	ELEC-1.3.1	Supply of ----- Module box Makes : Similar to Switches Make			
95	a	1 or 2	1	No	71.00
96	b	3	1	No	101.00
97	c	4	1	No	120.00
98	d	6	1	No	164.00
99	e	8 or 9	1	No	213.00
100	f	12	1	No	258.00
		MODULAR COVER FRAMES			
	ELEC-1.3.2	Supply of ----- Modular Cover Frame. Makes : Legrand Arteur / Schneider Zen celo / Honeywell Blenge Plus / Cabtree Amare / Logus Platina / Gold Medal GIFA / GM-Zenova/ L&T- Englaze			
101	a	1 or 2	1	No	79.00
102	b	3	1	No	97.00
103	c	4	1	No	112.00
104	d	6	1	No	164.00
105	e	8 or 9	1	No	213.00
106	f	12	1	No	263.00
	ELEC-1.3.3	Supply of ----- Modular Cover Frame. Makes : Legrand Myrius / GM Four Five / Million mway / Goldmedal Curve / Anchor Roma Plus / Havells Fabio / Panasonic Vision / Hager Insista / Benlo Vesta / C&S Primo / CPL Vysma / Polycab Levana / Salzar / Infinity			
107	a	1 or 2	1	No	70.00
108	b	3	1	No	85.00
109	c	4	1	No	101.00
110	d	6	1	No	138.00
111	e	8 or 9	1	No	170.00
112	f	12	1	No	207.00
		METALLIC BOXES (MS)			
	ELEC-1.3.4	Supply of ----- Metal Box			
113	a	4" x 4"	1	No	62.00
114	b	4" x 7"	1	No	72.00
115	c	6" x 6"	1	No	91.00
116	d	6" x 8"	1	No	122.00
117	e	8" x 10"	1	No	216.00
118	f	10" x 12"	1	No	273.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	1.4	WOODEN BOARDS			
	ELEC-1.4.1	Supply of Wooden Deep Boards / Wooden Deep Boxes of following Size or its equivalent.			
119	a	4" x 4"	1	No	12.00
120	b	4" x 7"	1	No	20.00
121	c	6" x 6"	1	No	24.00
122	d	6" x 8"	1	No	34.00
123	e	8" x 10"	1	No	53.00
124	f	10" x 12"	1	No	81.00
125	g	12" x 15"	1	No	122.00
	ELEC-1.4.2	Supply of Decolam Board of Size or its equivalent.			
126	a	4" x 4"	1	No	16.00
127	b	4" x 7"	1	No	27.00
128	c	6" x 6"	1	No	37.00
129	d	6" x 8"	1	No	48.00
130	e	8" x 10"	1	No	81.00
131	f	10" x 12"	1	No	122.00
132	g	12" x 15"	1	No	182.00
	ELEC-1.4.3	Supply of Peeta Board of Size ----- or its equivalent.			
133	a	9" x 14"	1	No	60.00
134	b	12" x 10"	1	No	62.00
135	c	15" x 20"	1	No	210.00
136	d	18" x 24"	1	No	303.00
137	e	18" x 30"	1	No	380.00
		SCREWS			
	ELEC-1.4.4	Supply of No.8 Screws of size-----			
138	a	12mm.	100	Nos	78.00
139	b	25mm.	100	Nos	97.00
140	c	30mm.	100	Nos	119.00
141	d	35/38mm.	100	Nos	128.00
142	e	50mm.	100	Nos	146.00
143	f	63/75mm.	100	Nos	178.00
	1.5	COPPER FLEXIBLE CABLES (AS PER IS:694)			
	ELEC-1.5.1	Supply of -----FRLSH / HFFR PVC insulated 1100V grade as per IS:694/1990, IS 17048 specification for Copper cable. Makes : Finolex / RR kabel / Havells / Polycab /Beljin (HFFR) /Ollvin(HFFR) / Finecab Gold (HFFR) / GM(HFFR) / Gold Medal(HFFR) / Million(HFFR) / KEI (HFFR) / V-Guard (HFFR)./ DEC (FRLS / HFFR) / Bonton (HFFR) and Avocab (HFFR) / Fortune Arrt (HFFR) / SPM (HFFR) / Sudhakar (HFFR) / Nakoda (HFFR) / HPL (HFFR) / GLOSTER (HFFR) / Rajnigandha (HFFR) / Pawancab (HFFR) / South King (HFFR)			
144	a	1.5 Sqmm	100	Mtrs	2296.00
145	b	2.5 Sqmm	100	Mtrs	3712.00
146	c	4.0 Sqmm	100	Mtrs	5666.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
147	d	6.0 Sqmm	100	Mtrs	8369.00
148	e	10.0 Sqmm	100	Mtrs	13843.00
149	f	16.0 Sqmm	100	Mtrs	21866.00
	ELEC-1.5.2	Supply of -----FRLSH / HFFR PVC insulated 1100V grade as per IS:694/1990 specification for Copper cable. Makes : RPG / Anchor / Power Flex / Sun Cab / Delton / Benlo / Gloster / Gemini / Nandicab / Savera Champion / Rhino / Unistar / Windsor / Payal			
150	a	1.5 Sqmm	100	Mtrs	2008.00
151	b	2.5 Sqmm	100	Mtrs	3255.00
152	c	4.0 Sqmm	100	Mtrs	5018.00
153	d	6.0 Sqmm	100	Mtrs	7488.00
154	e	10.0 Sqmm)	100	Mtrs	12192.00
155	f	16.0 Sqmm	100	Mtrs	20292.00
	ELEC-1.5.3	Supply of -----FRLS / HFFR PVC insulated 1100V grade as per IS:694/1990 specification for Copper cable. Makes : Khanthi / Vimal / Stanjo / Orbit			
156	a	1.5 Sqmm	100	Mtrs	1637.00
157	b	2.5 Sqmm	100	Mtrs	2631.00
158	c	4.0 Sqmm	100	Mtrs	3946.00
159	d	6.0 Sqmm	100	Mtrs	5927.00
160	e	10.0 Sqmm	100	Mtrs	10055.00
161	f	16.0 Sqmm	100	Mtrs	15422.00
162	ELEC-1.5.5	Supply of 23 / 0060 , 3 core (0.15 mm dia of each lead) twisted / flat heavy Copper wire. Makes : Finolex / RR Kabel / Havells / Polycab / GM / Million / V-Guard / Gold Medal / Kundancab / HPL / RPG / Nandicab / Nakoda / Payal / Finecab / Gemini / Vimal / Suncab / Pawancab	100	Mtrs	1260.00
		NOTE : If FR Wires are used instead of FRLSH / HFFR during execution of work, for arriving the FR Flexible wires rates 20% may be deducted from the finished Cost data of Light / Fan / Separate Plug Points and Run of mains.			
		SHEATHED FLEXIBLE COPPER CABLES			
	ELEC-1.5.6	Supply of PVC / XLPE Insulated Sheathed Multi Core Bright Annealed Bare Copper Conductor Heavy Duty Industrial Cables for Voltage Grade upto 1100 Volts as per IS: 694:1990 including all transportation charges etc complete. Makes : Finolex / RR kabel / Havells / Polycab / RPG / KEI / Gloster / V-Guard / Finecab / SPM / Gemini / Unistar / Windsor / Payal / Fortune Arrt / Avocab / Pawancab / Nakoda / HPL / Sudhakar /			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Bonton / Ollvin			
163	a	10 Sqmm Single Core	1	RM	134.00
164	b	16 Sqmm Single Core	1	RM	213.00
165	c	25 Sqmm Single Core	1	RM	333.00
166	d	35 Sqmm Single Core	1	RM	468.00
167	e	50 Sqmm Single Core	1	RM	666.00
168	f	70 Sqmm Single Core	1	RM	907.00
169	g	1.5 Sqmm 2 core	1	RM	59.00
170	h	2.5 Sqmm 2 Core	1	RM	92.00
171	i	4.0 Sqmm 2 Core	1	RM	134.00
172	j	6.0 Sqmm 2 Core	1	RM	193.00
173	k	10.0 Sqmm 2 Core	1	RM	333.00
174	l	16.0 Sqmm 2 Core	1	RM	408.00
175	m	1.5 Sqmm 3 core	1	RM	79.00
176	n	2.5 Sqmm 3 Core	1	RM	135.00
177	o	4.0 Sqmm 3 Core	1	RM	185.00
178	p	6.0 Sqmm 3 Core	1	RM	268.00
179	q	10.0 Sqmm 3 Core	1	RM	363.00
180	r	16.0 Sqmm 3 Core	1	RM	574.00
181	s	1.5 Sqmm 4 Core	1	RM	104.00
182	t	2.5 Sqmm 4 Core	1	RM	166.00
183	u	4.0 Sqmm 4 Core	1	RM	251.00
184	v	6.0 Sqmm 4 Core	1	RM	373.00
185	w	10.0 Sqmm 4 Core	1	RM	666.00
186	x	16.0 Sqmm 4 Core	1	RM	846.00
187	y	25.0 Sqmm 4 Core	1	RM	1391.00
188	z	35.0 Sqmm 4 Core	1	RM	2086.00
189	aa	50.0 Sqmm 4 Core	1	RM	2752.00
190	ab	70.0 Sqmm 4 Core	1	RM	3931.00
	ELEC-1.5.7	Supply of PVC / XLPE Insulated Sheathed Multi Core Bright Annealed Bare Copper Conductor Heavy Duty Industrial Cables for Voltage Grade upto 1100 Volts as per IS: 694:1990 including all transportation charges etc complete. Makes : Sun cab / Powerflex / Delton / Airson / Savera Champion / Rhino / Rajnigandha / Pawancab / South King			
191	a	10 Sqmm Single Core	1	RM	122.00
192	b	16 Sqmm Single Core	1	RM	192.00
193	c	25 Sqmm Single Core	1	RM	302.00
194	d	35 Sqmm Single Core	1	RM	439.00
195	e	50 Sqmm Single Core	1	RM	605.00
196	f	70 Sqmm Single Core	1	RM	862.00
197	g	1.5 Sqmm 2 core	1	RM	57.00
198	h	2.5 Sqmm 2 Core	1	RM	84.00
199	i	4.0 Sqmm 2 Core	1	RM	125.00
200	j	6.0 Sqmm 2 Core	1	RM	180.00
201	k	10.0 Sqmm 2 Core	1	RM	302.00
202	l	16.0 Sqmm 2 Core	1	RM	378.00
203	m	1.5 Sqmm 3 core	1	RM	77.00
204	n	2.5 Sqmm 3 Core	1	RM	128.00
205	o	4.0 Sqmm 3 Core	1	RM	172.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
206	p	6.0 Sqmm 3 Core	1	RM	254.00
207	q	10.0 Sqmm 3 Core	1	RM	340.00
208	r	16.0 Sqmm 3 Core	1	RM	529.00
209	s	1.5 Sqmm 4 Core	1	RM	97.00
210	t	2.5 Sqmm 4 Core	1	RM	146.00
211	u	4.0 Sqmm 4 Core	1	RM	232.00
212	v	6.0 Sqmm 4 Core	1	RM	354.00
213	w	10.0 Sqmm 4 Core	1	RM	620.00
214	x	16.0 Sqmm 4 Core	1	RM	801.00
215	y	25.0 Sqmm 4 Core	1	RM	1316.00
216	z	35.0 Sqmm 4 Core	1	RM	1966.00
217	aa	50.0 Sqmm 4 Core	1	RM	2570.00
218	ab	70.0 Sqmm 4 Core	1	RM	3629.00
	ELEC-1.5.8	Supply of PVC / XLPE Insulated, Flexible Armouring Flexible Copper cable as per IS 7098 / Part-I / 1988 including all transportation charges etc complete. Makes : Finolex / RR kabel / Havells / Polycab / RPG / KEI / Gloster / V-Guard / Finecab / SPM / Gemini / Unistar / Windsor / Payal / Fortune Arrrt / Avocab / Nakoda / HPL / Sudhakar / Bonton / Ollvin Rajnigandha / Pawancab / South King			
219	a	1.5 Sqmm 2 Core	1	RM	89.00
220	b	2.5 Sqmm 2 Core	1	RM	109.00
221	c	4.0 Sqmm 2 Core	1	RM	172.00
222	d	6.0 Sqmm 2 Core	1	RM	225.00
223	e	10.0 Sqmm 2 Core	1	RM	371.00
224	f	16.0 Sqmm 2 Core	1	RM	506.00
225	g	1.5 Sqmm 3 Core	1	RM	113.00
226	h	2.5 Sqmm 3 Core	1	RM	148.00
227	i	4.0 Sqmm 3 Core	1	RM	192.00
228	j	6.0 Sqmm 3 Core	1	RM	297.00
229	k	10.0 Sqmm 3 Core	1	RM	385.00
230	l	16.0 Sqmm 3 Core	1	RM	544.00
231	m	1.5 Sqmm 4 Core	1	RM	142.00
232	n	2.5 Sqmm 4 Core	1	RM	187.00
233	o	4.0 Sqmm 4 Core	1	RM	278.00
234	p	6.0 Sqmm 4 Core	1	RM	379.00
235	q	10.0 Sqmm 4 Core	1	RM	688.00
236	r	16.0 Sqmm 4 Core	1	RM	1164.00
237	s	25.0 Sqmm 4 Core	1	RM	1800.00
238	t	35.0 Sqmm 4 Core	1	RM	2464.00
239	u	50.0 Sqmm 4 Core	1	RM	3492.00
240	v	70.0 Sqmm 4 Core	1	RM	5368.00
241	w	2.5 Sqmm 8 Core	1	RM	328.00
242	x	2.5 Sqmm 16 Core	1	RM	437.00
243	y	1.5 Sqmm 10 Core	1	RM	276.00
244	z	1.5 Sqmm 16 Core	1	RM	405.00
	ELEC-1.5.9	Supply of PVC / XLPE Insulated, Flexible Armouring Flexible Copper cable as per IS 7098 / Part-I / 1988 including all transportation charges			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		etc complete. Makes : Delton / Airson / Rhino			
245	a	1.5 Sqmm 2 Core	1	RM	77.00
246	b	2.5 Sqmm 2 Core	1	RM	103.00
247	c	4.0 Sqmm 2 Core	1	RM	158.00
248	d	6.0 Sqmm 2 Core	1	RM	206.00
249	e	10.0 Sqmm 2 Core	1	RM	340.00
250	f	16.0 Sqmm 2 Core	1	RM	477.00
251	g	1.5 Sqmm 3 Core	1	RM	103.00
252	h	2.5 Sqmm 3 Core	1	RM	135.00
253	i	4.0 Sqmm 3 Core	1	RM	179.00
254	j	6.0 Sqmm 3 Core	1	RM	268.00
255	k	10.0 Sqmm 3 Core	1	RM	340.00
256	l	16.0 Sqmm 3 Core	1	RM	491.00
257	m	1.5 Sqmm 4 Core	1	RM	128.00
258	n	2.5 Sqmm 4 Core	1	RM	173.00
259	o	4.0 Sqmm 4 Core	1	RM	245.00
260	p	6.0 Sqmm 4 Core	1	RM	354.00
261	q	10.0 Sqmm 4 Core	1	RM	643.00
262	r	16.0 Sqmm 4 Core	1	RM	1058.00
263	s	25.0 Sqmm 4 Core	1	RM	1436.00
264	t	35.0 Sqmm 4 Core	1	RM	2117.00
265	u	50.0 Sqmm 4 Core	1	RM	3024.00
266	v	70.0 Sqmm 4 Core	1	RM	4536.00
267	w	2.5 Sqmm 8 Core	1	RM	282.00
268	x	2.5 Sqmm 16 Core	1	RM	385.00
269	y	1.5 Sqmm 10 Core	1	RM	257.00
270	z	1.5 Sqmm 16 Core	1	RM	385.00
	1.6	SERVICE MAINS AND FLAT CABLE OF ISI FOR SUBMERSIBLE MOTORS.			
	ELEC-1.6.1	Supply of ----- WPSC (Weather Proof Single Core) ISI mark Alluminium Wire. Makes : Polycab / GM / Million / V-Guard / Gold Medal / Kundancab / HPL / RPG / Nandicab / Nakoda / Payal / Finecab / Gemini / Vimal / Suncab / Stanjo / Rajnigandha / Orbit / Airson / Beljin / Savera Champion / Rhino / Pawancab			
271	a	2.5 Sqmm	100	Mtrs	912.00
272	b	6.0 Sqmm	100	Mtrs	1852.00
273	c	10.0 Sqmm	100	Mtrs	1998.00
274	d	16 Sqmm	100	Mtrs	3334.00
	ELEC-1.6.2	Supply of ----- WPTC (Weather Proof Twin Core) ISI mark Alluminium Wire. Makes : Polycab / GM / Million / V-Guard / Gold Medal / Kundancab / HPL / RPG / Nandicab / Nakoda / Payal / Finecab / Gemini / Vimal / Suncab / Stanjo / Rajnigandha / Orbit / Airson / Beljin / Savera Champion. / Rhino / Pawancab			
275	a	6 Sqmm	100	Mtrs	3731.00
276	b	10 Sqmm	100	Mtrs	4498.00
	ELEC-1.6.3	Supply of 3 Core ----- Flat			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Copper cable of ISI for Submersible Motors. Makes : Finolex / RR Kabel / Havells / KEI / L&T / Pawancab			
277	a	1.5 Sqmm	100	Mtrs	7657.00
278	b	2.5 Sqmm	100	Mtrs	11810.00
279	c	4.0 Sqmm	100	Mtrs	17651.00
280	d	6.0 Sqmm	100	Mtrs	25956.00
281	e	10.0 Sqmm	100	Mtrs	42048.00
	ELEC-1.6.4	Supply of 3 Core ----- Flat Copper cable of ISI for Submersible Motors. Makes : Polycab / GM / Million / V-Guard / Gold Medal / Kundancab / HPL / RPG / Nandicab / Payal / Finecab / Gemini / Vimal / Suncab / Delton / Ollvin / Airson / Stanjo/ Nakoda / Beljin / Savera Champion / Rhino / Pawancab			
282	a	1.5 Sqmm	100	Mtrs	7268.00
283	b	2.5 Sqmm	100	Mtrs	11162.00
284	c	4.0 Sqmm	100	Mtrs	16741.00
285	d	6.0 Sqmm	100	Mtrs	24658.00
286	e	10.0 Sqmm	100	Mtrs	39972.00
	1.7	FLUSH TYPE SWITCHES AND ACCESSORIES			
	ELEC-1.7.1	Supply of ----- Makes : GM G Home / Gold Medal Olive / Million Zoom / Anchor Penta Cherry / Great white Omega / HPL / Vimal / CPL.			
287	a	6A 1 Way flush type Swich.	1	No	20.00
288	b	6A 2 Way flush type Swich.	1	No	23.00
289	c	6A 2 pin flush type Socket.	1	No	22.00
290	d	6A 3/2 pin flush type Socket with shutter.	1	No	29.00
291	e	6A flush type Neon Indicator.	1	No	22.00
292	f	6A Triangle Plug Top .	1	No	40.00
293	g	6A 1 Way flush type Bed Swich / Bell Push.	1	No	23.00
294	h	16A flush type Swich.	1	No	72.00
295	i	16A flush type Socket with shutter.	1	No	72.00
296	j	16A flush type Switch Socket combined (2 in one).	1	No	112.00
297	k	16A Triangle Plug Top.	1	No	56.00
298	l	Stepped type Electronic Regulator.	1	No	242.00
299	m	3 Plate Jumbo Ceiling Rose.	1	No	23.00
300	n	BH / SBH.	1	No	22.00
301	o	Pendent Holder / Adopter.	1	No	20.00
302	p	Telephone Jack with Connector	1	No	53.00
303	q	TV Antenna Outlet.	1	No	29.00
304	r	15A/10A Flush type Fuse.	1	No	36.00
305	s	32A DP Flush type	1	No	118.00
	ELEC-1.7.2	Supply of ----- Makes : GM / Million / Gold Medal / Anchor / Great white.			
306	a	Buzzer.	1	No	55.00
307	b	Ding Dong Bell.	1	No	116.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
308	c	Electronic Musical Bell.	1	No	266.00
309	d	Remote Bell.	1	No	641.00
310	e	MC Holder.	1	No	24.00
311	f	Spike Guard with 1 No Switch and 4 Nos Sockets.	1	No	545.00
312	g	Spike Guard with 4 No Switches and 4 Nos Sockets.	1	No	811.00
	1.8	MINI MODULAR SWITCHES AND ACCESSORIES			
	ELEC-1.8.1	Supply of ----- Makes : GM / Anchor / Million / Vimal / Gold Medal / CPL / Great White.			
313	a	6A 1 Way Mini Modular Switch with Cover Frame.	1	No	25.00
314	b	6A 2 Way Mini Modular Switch with Cover Frame.	1	No	29.00
315	c	6A 2 Pin Mini Modular Socket with Cover Frame.	1	No	26.00
316	d	6A 3/2 Pin Mini Modular Socket with Cover Frame.	1	No	39.00
317	e	6A Mini Modular Neon Indicator with Cover Frame.	1	No	31.00
318	f	6A Mini Modular Bed Switch / Bell Push with Cover Frame.	1	No	29.00
319	g	6A 1 Way Mini Modular Switch with Neon Indicator with Cover Frame.	1	No	31.00
320	h	6A Mini Modular Bell Push with Neon Indicator with Cover Frame.	1	No	43.00
321	i	16A Mini Modular Switch with Cover Frame.	1	No	87.00
322	j	16A (2 in one) Mini Modular Switch & Socket combined with Cover Frame.	1	No	119.00
323	k	16A Triangle Top with Cover Frame.	1	No	53.00
324	l	Mini Modular Stepped type Electronic Regulator with Cover Frame.	1	No	261.00
325	m	Mini Modular Telephone Jack with Connector with Cover Frame.	1	No	58.00
326	n	Mini Modular TV Antenna Outlet with Cover Frame.	1	No	39.00
327	o	16A/10A Mini Modular Flush Fuse with Cover Frame.	1	No	44.00
	1.9	MODULAR SWITCHES AND ACCESSORIES			
	ELEC-1.9.1	Supply of ----- Makes : Legrand Arteor / Schneider Zen celo / Honeywell Blenge Plus / Cabtree Amare / Logus Platina / Gold Medal GIFA / GM-Zenova/ L&T- Englaze			
328	a	6 / 10A 1 Way 1 Module Modular Switch	1	No	116.00
329	b	6 / 10A 2 Way 1 Module Modular Switch.	1	No	128.00
330	c	10A 2 Pin 2 Module Modular Socket.	1	No	117.00
331	d	10A 3/2 Pin 2 Module Modular Socket with shutter.	1	No	178.00
332	e	10A 1 Module Modular Switch with Neon Indicator.	1	No	144.00
333	f	10A Modular Bell Push with Neon	1	No	173.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Indicator.			
334	g	16A / 10A Modular Flush Fuse with Neon Indicator.	1	No	156.00
335	h	16A / 20A 1 Way 1 Module Modular Switch.	1	No	156.00
336	i	16A / 20A 2 Way 1 Module Modular Switch.	1	No	175.00
337	j	20A 1 Way 1 Module Modular Switch with Indicator.	1	No	175.00
338	k	20A 2 Module Modular Socket with shutter.	1	No	238.00
339	l	16A / 6A 1 way 2 Module Combi Socket Modular Socket with shutter.	1	No	248.00
340	m	16A Triangle Top.	1	No	198.00
341	n	2 Module Modular type Electronic Fan Regulator.	1	No	592.00
342	o	Modular socket type Telephone jack with Connector.	1	No	125.00
343	p	Modular co-Axial socket type TV Antenna outlet.	1	No	125.00
344	q	25 to 32A Modular type Motor Starter Switch	1	No	633.00
345	r	Modular type buzzer	1	No	116.00
	ELEC-1.9.2	Supply of ----- Makes : Legrand Myrius / GM Four Five / Million mway / Goldmedal Curve / Anchor Roma Plus / Havells Fabio / Panasonic Vision / Hager Insista / Benlo Vesta / C&S Primo / CPL Vysma / Polycab Levana / Salzar / Infinity			
346	a	6 / 10A 1 Way 1 Module Modular Switch	1	No	79.00
347	b	6 / 10A 2 Way 1 Module Modular Switch.	1	No	93.00
348	c	10A 2 Pin 2 Module Modular Socket.	1	No	81.00
349	d	10A 3/2 Pin 2 Module Modular Socket with shutter.	1	No	118.00
350	e	10A 1 Module Modular Switch with Neon Indicator.	1	No	93.00
351	f	10A Modular Bell Push with Neon Indicator.	1	No	115.00
352	g	16A / 10A Modular Flush Fuse with Neon Indicator.	1	No	106.00
353	h	16A / 20A 1 Way 1 Module Modular Switch.	1	No	106.00
354	i	16A / 20A 2 Way 1 Module Modular Switch.	1	No	122.00
355	j	20A 1 Way 1 Module Modular Switch with Indicator.	1	No	116.00
356	k	20A 2 Module Modular Socket with shutter.	1	No	173.00
357	l	16A / 6A 1 way 2 Module Combi Socket Modular Socket with shutter.	1	No	173.00
358	m	16A Triangle Top.	1	No	83.00
359	n	2 Module Modular type Electronic Fan Regulator.	1	No	480.00
360	o	Modular socket type Telephone jack with	1	No	83.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Connector.			
361	p	Modular co-Axial socket type TV Antenna outlet.	1	No	81.00
362	q	25 to 32A Modular type Motor Starter Switch	1	No	567.00
363	r	Modular type buzzer	1	No	114.00
		SECTION - 2			
	2.1	PANEL MOUNTING SWITCH DISCONNECTOR FUSE UNITS (SDFU) AS PER IS: 13947			
	ELEC-2.1.1	Supply of ----- TPN Switch Disconnector Fuse Unit Cubical type without fuses. Makes : L&T / SCHNEIDER / C&S / ABB / SIEMENS			
364	a	32A	1	No	1365.00
365	b	63A	1	No	2331.00
366	c	125A	1	No	5576.00
367	d	200A	1	No	7298.00
368	e	250A	1	No	8736.00
369	f	400A	1	No	13440.00
370	g	630A	1	No	22785.00
	ELEC-2.1.2	Supply of ----- TPN Switch Disconnector Fuse Unit Cubical type without fuses. Makes : Havells / HPL / Indo Asian / Standard / Vimal.			
371	a	32A	1	No	1155.00
372	b	63A	1	No	1680.00
373	c	125A	1	No	3885.00
374	d	200A	1	No	5786.00
375	e	250A	1	No	6521.00
376	f	400A	1	No	9965.00
377	g	630A	1	No	16538.00
	2.2	ON LOAD CHANGEOVER SWITCHES (OPEN EXECUTION) AS PER IS:13947			
	ELEC-2.2.1	Supply of-----4 Pole Change Over Switch on Load with open Execution. Makes : Socomec / L & T			
378	a	63A	1	No	6004.00
379	b	125A	1	No	11276.00
380	c	200A	1	No	15084.00
381	d	250A	1	No	21381.00
382	e	400A	1	No	32657.00
383	f	630A	1	No	38807.00
	ELEC-2.2.2	Supply of-----4 Pole Change Over Switch on Load with open Execution. Makes : ABB / Siemens / Havells / Indo Asian / HPL / Standard / C&S / Benlo.			
384	a	32A	1	No	2067.00
385	b	63A	1	No	5418.00
386	c	125A	1	No	10544.00
387	d	200A	1	No	13911.00
388	e	250A	1	No	19769.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
389	f	400A	1	No	30752.00
390	g	630A	1	No	36756.00
	2.3	OFF LOAD CHANGE OVER SWITCHES IN SS ENCLOSURE AS PER IS:13947			
	ELEC-2.3.1	Supply of ----- Off load Changeover Switch in sheet steel enclosure. Makes : HPL / Havells / Indo Asian / Sputnik / C&S			
391	a	32A 240V DP	1	No	1367.00
392	b	63A 415V FP	1	No	4741.00
393	c	100A 415V FP	1	No	7277.00
	ELEC-2.3.2	Supply of ----- Off load Changeover Switch in sheet steel enclosure. Makes : Million / Benlo / Gold Medal / Star/ Standard.			
394	a	32A 240V DP	1	No	783.00
395	b	63A 415V FP	1	No	2756.00
396	c	100A 415V FP	1	No	5182.00
	2.4	REWIRABLE / DOUBLE BREAK SWITCHES IN SS ENCLOSURE AS PER IS:13947			
	ELEC-2.4.1	Supply of ----- Rewirable Fuse Switch in SS enclosure. Makes : HPL / Havells / Indo Asian / C&S			
397	a	32A 240V SPN	1	No	970.00
398	b	32A 415V TPN	1	No	1502.00
399	c	63A 415V TPN	1	No	3407.00
400	d	100A 415V TPN	1	No	6353.00
	ELEC-2.4.2	Supply of ----- Double Break Switch in SS enclosure without fuses. Makes : HPL / Havells / Indo Asian / C&S			
401	a	100A 415V TPN	1	No	6353.00
402	b	200A 415V TPN	1	No	9356.00
	ELEC-2.4.3	Supply of ----- Rewirable Fuse Switch in SS enclosure. Makes : GM / Million / Sputnik / Sigma / Gold Medal / Benlo / Star.			
403	a	32A 240V SPN	1	No	647.00
404	b	32A 415V TPN	1	No	1063.00
405	c	63A 415V TPN	1	No	2426.00
406	d	100A 415V TPN	1	No	4736.00
	ELEC-2.4.4	Supply of ----- Double Break Switch in SS enclosure without fuses. Makes : GM / Million / Sputnik / Sigma / Gold Medal / Benlo / Star.			
407	a	100A 415V TPN	1	No	4863.00
408	b	200A 415V TPN	1	No	7970.00
	2.5	HRC FUSE LINKS (BOLTED TYPE)			
	ELEC-2.5.1	Supply of ----- HRC Fuse Links. Makes : L & T / C & S / Standard / HPL / Havells / Siemens / Indo Asian.			
409	a	Up to 32A	1	No	55.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
410	b	32A to 63A	1	No	83.00
411	c	125A to 200A	1	No	272.00
412	d	250A to 350A	1	No	393.00
413	e	400A	1	No	762.00
414	f	630A	1	No	1536.00
	2.6	PORCELAIN REWIRABLE FUSE UNITS.			
	ELEC-2.6.1	Supply of ----- Porcelain Rewirable Fuse Units. Makes : C&S / GM / Sputnik / Kundancab / Million / Gold Medal / Vimal / Star / Benlo.			
415	a	32A 240V	1	No	106.00
416	b	32A 415V	1	No	139.00
417	c	63A 415V	1	No	284.00
418	d	100A 415V	1	No	531.00
	ELEC-2.6.2	Supply of ----- Porcelain Rewirable Fuse Units with extension strip. Makes : C&S / GM / Sputnik / Kundancab / Million / Gold Medal / Vimal / Star / Benlo.			
419	a	200A 415V	1	No	970.00
420	b	300A 415V	1	No	1282.00
	2.7	VOLTAGE SURGE PROTECTORS			
	ELEC-2.7.1	Supply of ----- Voltage Surge Protector. Make:Legrand / Siemens / Hager / L&T.			
421	a	2 Pole 2 Module 40 KA	1	No	9235.00
422	b	4 Pole 4 Module 40 KA	1	No	17204.00
423	c	2 Pole 2 Module 15/16 KA	1	No	7337.00
424	d	4 Pole 4 Module 15/16 KA	1	No	13789.00
	2.8	PANEL MOUNTING MCCBs			
	ELEC-2.8.1	Supply of ----- Adjustable, Confirms to IS/IEC 60947-2 having Breaking Capacity -----KA with thermal magnetic release Panel Mounted. Makes : L&T- D sine / Schneider-NS NSX/Legrand -DP X3/ Siemens-3V / Hager-h3/C&S -Winbreak.			
425	a	63A 3 Pole MCCB, 16KA	1	No	9134.00
426	b	63A 4 Pole MCCB, 16KA	1	No	10270.00
427	c	125A 3 Pole MCCB, 25KA	1	No	10841.00
428	d	125A 4 Pole MCCB, 25KA	1	No	13110.00
429	e	160A 3 Pole MCCB, 25KA	1	No	14379.00
430	f	160A 4 Pole MCCB, 25KA	1	No	18775.00
431	g	250A 3 Pole MCCB, 35/36KA	1	No	24150.00
432	h	250A 4 Pole MCCB, 35/36KA	1	No	31372.00
433	i	400A 3 Pole MCCB, 35/36KA	1	No	32685.00
434	j	400A 4 Pole MCCB, 35/36KA	1	No	39492.00
435	k	630A 3 Pole MCCB, 50KA	1	No	47083.00
436	l	630A 4 Pole MCCB, 50KA	1	No	58277.00
437	m	800A 3 Pole MCCB, 50KA	1	No	83955.00
438	n	800A 4 Pole MCCB, 50KA	1	No	93026.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-2.8.2	Supply of ----- Adjustable, Confirms to IS/IEC 60947-2 having Breaking Capacity -----KA with thermal magnetic release Panel Mounted. Makes : Havells / HPL / Indo Asian / Benlo / Delton / Standard.			
439	a	63A 3 Pole MCCB, 16KA	1	No	6375.00
440	b	63A 4 Pole MCCB, 16KA	1	No	8544.00
441	c	125A 3 Pole MCCB, 25KA	1	No	8335.00
442	d	125A 4 Pole MCCB, 25KA	1	No	10956.00
443	e	160A 3 Pole MCCB, 25KA	1	No	11302.00
444	f	160A 4 Pole MCCB, 25KA	1	No	15223.00
445	g	250A 3 Pole MCCB, 35/36KA	1	No	22339.00
446	h	250A 4 Pole MCCB, 35/36KA	1	No	27141.00
447	i	400A 3 Pole MCCB, 35/36KA	1	No	28634.00
448	j	400A 4 Pole MCCB, 35/36KA	1	No	34495.00
449	k	630A 3 Pole MCCB, 50KA	1	No	39363.00
450	l	630A 4 Pole MCCB, 50KA	1	No	47667.00
451	m	800A 3 Pole MCCB, 50KA	1	No	69193.00
452	n	800A 4 Pole MCCB, 50KA	1	No	77190.00
	2.9	RCCBs CONFIRMS TO IEC : 61008 AND IS : 12640			
	ELEC-2.9.1	Supply of ----- Makes : Legrand-DX3 / Schneider-Acti9 / Siemens / L&T Exora.			
453	a	40A 2 Pole RCCB 30mA.	1	No	4139.00
454	b	40A 2 Pole RCCB 100mA.	1	No	4450.00
455	c	40A 4 Pole RCCB 30mA.	1	No	4558.00
456	d	40A 4 Pole RCCB 100mA.	1	No	4808.00
457	e	63A 2 Pole RCCB 30mA.	1	No	5062.00
458	f	63A 2 Pole RCCB 100mA.	1	No	5108.00
459	g	63A 4 Pole RCCB 30mA.	1	No	5392.00
460	h	63A 4 Pole RCCB 100mA.	1	No	6133.00
	ELEC-2.9.2	Supply of ----- Makes : ABB / Havells / HPL(Techno) / Hager / Indo Asian (Gold Plus) / C&S / Honeywell sentry / Delton / Benlo.			
461	a	40A 2 Pole RCCB 30mA.	1	No	3303.00
462	b	40A 2 Pole RCCB 100mA.	1	No	3251.00
463	c	40A 4 Pole RCCB 30mA.	1	No	4060.00
464	d	40A 4 Pole RCCB 100mA.	1	No	3926.00
465	e	63A 2 Pole RCCB 30mA.	1	No	4452.00
466	f	63A 2 Pole RCCB 100mA.	1	No	4265.00
467	g	63A 4 Pole RCCB 30mA.	1	No	4632.00
468	h	63A 4 Pole RCCB 100mA.	1	No	4519.00
	2.10	RCBOs CONFIRMS TO IEC:61008 AND IS:12640			
	ELEC-2.10.1	Supply of ----- Makes : Legrand-DX3 / Schneider-Acti9 / Siemens / L&T Exora / Cabtree.			
469	a	40A 2 Pole RCBO 30mA.	1	No	6664.00
470	b	40A 2 Pole RCBO 100mA.	1	No	7279.00
471	c	40A 4 Pole RCBO 30mA.	1	No	7573.00
472	d	40A 4 Pole RCBO 100mA.	1	No	8012.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
473	e	63A 2 Pole RCBO 30mA.	1	No	7967.00
474	f	63A 2 Pole RCBO 100mA.	1	No	8435.00
475	g	63A 4 Pole RCBO 30mA.	1	No	8933.00
476	h	63A 4 Pole RCBO 100mA.	1	No	9110.00
477	ELEC-2.10.2	Supply of MCB type Change Over Switch 20A Double Pole 2 way 400V AC suitable to fix on Din Channel.	1	No	2638.00
	2.11	PANEL MOUNTING ACBs (Microprocessor Based)			
	ELEC-2.11.1	Supply of ----- Air Circuit Breaker Confirms to IS 13947-2, IEC 60947-2 and BS-EN 60947 with Micro processor based having over load, shot circuit and earth fault Protection. Makes : Siemens (Sentron- 3W) / L&T U Power / Schneider Master Pact / ABB Emax / C&S.Winmaster2 / Legrand DMX3			
478	a	630A 3 Pole, 50kA, electrically fixed	1	No	150101.00
479	b	630A 3 Pole, 50kA, electrically drawout	1	No	200622.00
480	c	630A 4 Pole, 50kA, electrically fixed	1	No	186711.00
481	d	630A 4 Pole, 50kA, electrically drawout	1	No	248948.00
482	e	800A 3 Pole, 50kA, electrically drawout	1	No	212337.00
483	f	800A 4 Pole, 50kA, electrically drawout	1	No	262127.00
484	g	1000A 3 Pole, 50kA, electrically drawout	1	No	222588.00
485	h	1000A 4 Pole, 50kA, electrically drawout	1	No	279700.00
486	i	1250A 3 Pole, 50kA, electrically drawout	1	No	298737.00
487	j	1250A 4 Pole, 50kA, electrically drawout	1	No	366099.00
488	k	1600A 3 Pole, 50kA, electrically drawout	1	No	330954.00
489	l	1600A 4 Pole, 50kA, electrically drawout	1	No	395387.00
490	m	2000A 3 Pole, 50kA, electrically drawout	1	No	385137.00
491	n	2000A 4 Pole, 50kA, electrically drawout	1	No	468607.00
492	o	2500A 3 Pole, 50kA, electrically drawout	1	No	549149.00
493	p	2500A 4 Pole, 50kA, electrically drawout	1	No	673622.00
494	q	3200A 3 Pole, 50kA, electrically drawout	1	No	571115.00
495	r	3200A 4 Pole, 50kA, electrically drawout	1	No	717554.00
	ELEC-2.11.2	Supply of ----- Air Circuit Breaker Confirms to IS 13947-2, IEC 60947-2 and BS-EN 60947 with Micro processor based having over load, shot circuit and earth fault Protection Makes : HPL / Hager / Havells / Indo Asian.			
496	a	630A 3 Pole, 50kA, electrically fixed	1	No	136189.00
497	b	630A 3 Pole, 50kA, electrically drawout	1	No	181585.00
498	c	630A 4 Pole, 50kA, electrically fixed	1	No	168406.00
499	d	630A 4 Pole, 50kA, electrically drawout	1	No	224053.00
500	e	800A 3 Pole, 50kA, electrically drawout	1	No	190372.00
501	f	800A 4 Pole, 50kA, electrically drawout	1	No	237233.00
	2.12	RAISING MAINS			
	ELEC-2.12.1	Supply, instalation, testing and commisioning of Amp, ...KA breaking capacity (100% Neutral busbar) air insulated compact Raising mains/Bus Duct system made of CRCA sheet/Hot Galvanized steel encloser of thickness not			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		less than 0.8 mm having degree of protection of IP 55 as per IEC/EN 61439-6, PVC/Plastic insulated reinforced with glass fibre four strip ALUMINIUM busbar in convinient sections including necessary end cover units suitable for 415 volts 3 phase, 4 wire, 50 Hz A.C. System,etc.,with necessary joints Fire barrier at each floor Provision of tapping at each floor/every meter,continuous earthing with 2 nos alluminium strip of suitable size (one on each side0 including GI clamping brackets,angle iron brackets,steel fastners,connecting to earth system as required . Makes: Legrand (Zucchini) / C&S			
502	a	400Amp, 50 - 53KA	1	RM	11113.00
503	b	630Amp, 50 - 63KA	1	RM	13104.00
504	c	800 Amp, 50 - 76KA	1	RM	14864.00
505	d	1000 Amp, 50 - 76KA	1	RM	16506.00
506	e	1250 Amp, 50 - 76KA	1	RM	17136.00
507	f	1600 Amp, 50 - 76KA	1	RM	21420.00
508	ELEC-2.12.2	Supply and Fixing of Spring Bracket with fixing kit for Air Insulated Busduct / Raising Mains. Makes: Legrand (Zucchini) / C&S	1	No	6300.00
	ELEC-2.12.3	Supply and Fixing of Amps Horizontal / Vertical bends for Air Insulated Bus Duct .Makes: Legrand (Zucchini) / C&S			
509	a	400Amp,	1	No	12600.00
510	b	630Amp,	1	No	14364.00
511	c	800 Amp,	1	No	14994.00
512	d	1000 Amp,	1	No	17514.00
513	e	1250 Amp,	1	No	18913.00
514	f	1600 Amp,	1	No	21294.00
	ELEC-2.12.4	Supply and Fixing of Amps Tap off box for Air Insulated Busduct. Makes : Legrand (Zucchini) / Schneider			
515	a	125Amp,	1	No	16107.00
516	b	250Amp,	1	No	23101.00
517	c	400 Amp,	1	No	31920.00
518	d	630 Amp,	1	No	35280.00
	2.13	SANDWITCH BUSDUCT			
	ELEC-2.13.1	Supply, instalation, testing and commisioning of Amp, ...KA breaking capacity (100% Neutral busbar) sandwich Busduct system made of CRCA sheet/Hot Galvanized steel encloser of thickness not less than 1.5mm having degree of protection of IP 55 as per IEC/EN 61439-6, PVC/Plastic insulated reinforced with glass fibre four strip ALUMINIUM busbar in convinient sections including end cover units suitable for 415 volts 3 phase, 4 wire, 50 Hz A.C.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		System,etc., with necessary joints Fire barrier at each floor Provision of tapping at each floor/every meter,continuous earthing with 2 nos alluminium strip of suitable size (one on each side) including GI clamping brackets,angle iron brackets,steel fastners,connecting to earth system as required . Makes: Legrand (Zucchini) / L&T / Schneider / C&S / Siemens			
519	a	630A 36/40KA	1	RM	18581.00
520	b	800A 42/50KA	1	RM	19947.00
521	c	1000A 50KA	1	RM	22224.00
522	d	1250A 75KA	1	RM	24501.00
523	e	1600A 80KA	1	RM	32333.00
524	f	2000A 80KA	1	RM	34155.00
525	g	2500A 150KA	1	RM	47362.00
526	h	3200A 160KA	1	RM	55103.00
527	i	4000 A,160kA	1	RM	65274.00
	ELEC-2.13.2	Supply and Fixing of Amps Horizontal / Vertical bends for sandwich Bus Duct . Makes: Legrand (Zucchini) / L&T / Schiender / C&S /Siemens.			
528	a	630A	1	No	16546.00
529	b	800A	1	No	17457.00
530	c	1000A	1	No	18520.00
531	d	1250A	1	No	20038.00
532	e	1600A	1	No	22770.00
533	f	2000A	1	No	26565.00
534	g	2500A	1	No	33700.00
535	h	3200A	1	No	40682.00
536	i	4000 A	1	No	46906.00
	ELEC-2.13.3	Supply and Fixing of Amps Copper Flexibles for three phases and neutral for Air Insulated / sandwichBusduct . Makes: Legrand (Zucchini) / L&T / Schiender /C&S/Siemens.			
537	a	400A	1	No	21821.00
538	b	630A	1	No	23276.00
539	c	800A	1	No	24731.00
540	d	1000A	1	No	27640.00
541	e	1250A	1	No	32005.00
542	f	1600A	1	No	37824.00
543	g	2000A	1	No	43643.00
544	h	2500A	1	No	50916.00
545	i	3200A	1	No	58190.00
546	j	4000 A	1	No	65464.00
	ELEC-2.13.4	Supply and fixing of Flange end for Amps for Air insulated Busdusts . Makes: Legrand (Zucchini) / Schiender / C&S / Siemens.			
547	a	400Amp,	1	No	13662.00
548	b	630Amp,	1	No	18216.00
549	c	800 Amp,	1	No	21252.00
	ELEC-2.13.5	Supply and fixing of Flange end for			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Amps for Sandwitch Busdusts . Makes: Legrand (Zucchini) / L&T / Schiender / C&S / Siemens.			
550	a	400A	1	No	15939.00
551	b	630A	1	No	23529.00
552	c	800A	1	No	27324.00
553	d	1000A	1	No	28842.00
554	e	1250A	1	No	31574.00
555	f	1600A	1	No	33700.00
556	g	2000A	1	No	36432.00
557	h	2500A	1	No	40986.00
558	i	3200A	1	No	48576.00
559	j	4000 A	1	No	57684.00
	ELEC-2.13.6	Supply and Fixing of Amps Tap off box for Sandwitch Busduct Makes: Legrand (Zucchini) / L&T / Schiender / C&S / Siemens..			
560	a	160A	1	No	14421.00
561	b	250A	1	No	24288.00
562	c	400A	1	No	27324.00
563	d	630A	1	No	33396.00
	ELEC-2.13.7	Supply and Fixing of Amps end cover for Sandwitch Busduct Makes: Legrand (Zucchini) / L&T / Schiender / C&S / Siemens.			
564	a	400A -4000A	1	No	13055.00
	ELEC-2.13.8	Supply and Fixing of Amps expansion joint for Sandwitch Busduct Makes: Legrand (Zucchini) / L&T / Schiender /C&S/siemens.			
565	a	400A	1	No	159390.00
566	b	630A	1	No	212520.00
567	c	800A	1	No	220110.00
568	d	1000A	1	No	221628.00
569	e	1250A	1	No	236808.00
570	f	1600A	1	No	245916.00
571	g	2000A	1	No	258060.00
572	h	2500A	1	No	267168.00
573	i	3200A	1	No	273240.00
574	j	4000 A	1	No	280830.00
	ELEC-2.13.9	Supply and Fixing of Amps rubber bellows for Sandwitch Busduct Makes: Legrand (Zucchini) / L&T / Schiender / C&S / Siemens.			
575	a	400A -4000A	1	No	17457.00
	2.14	MCBs (AS PER IS:60898-1:2002)			
	ELEC-2.14.1	Supply of -----10KA, C/D Curve ISI Mark. Makes : Legrand-DX3 / Schneider-Acti9 / Siemens / L&T Exora / Cabtree / Indo Asian / BCH			
576	a	6-32A SP MCB	1	No	309.00
577	b	40-63A SP MCB	1	No	651.00
578	c	6-32A DP MCB	1	No	916.00
579	d	40-63A DP MCB	1	No	1482.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
580	e	6-32A TP MCB	1	No	1399.00
581	f	40-63A TP MCB	1	No	2167.00
582	g	6-32A FP MCB	1	No	1874.00
583	h	40-63A FP MCB	1	No	2784.00
	ELEC-2.14.2	Supply of -----10KA, C/D Curve ISI Mark. Makes : ABB / Havells / HPL(Techno) / Hager / C&S / Delton / Honeywell sentry / Benlo / Salzar			
584	a	6-32A SP MCB	1	No	240.00
585	b	40-63A SP MCB	1	No	528.00
586	c	6-32A DP MCB	1	No	748.00
587	d	40-63A DP MCB	1	No	1025.00
588	e	6-32A TP MCB	1	No	1200.00
589	f	40-63A TP MCB	1	No	1670.00
590	g	6-32A FP MCB	1	No	1553.00
591	h	40-63A FP MCB	1	No	2096.00
	ELEC-2.14.3	Supply of ----- 10KA, C/D Curve ISI Mark. Makes : Gold Medal / GM / Milltec / Sputnik / Stanjo Amron.			
592	a	6-32A SP MCB	1	No	167.00
593	b	40-63A SP MCB	1	No	292.00
594	c	6-32A DP MCB	1	No	445.00
595	d	40-63A DP MCB	1	No	665.00
596	e	6-32A TP MCB	1	No	811.00
597	f	40-63A TP MCB	1	No	1262.00
598	g	6-32A FP MCB	1	No	1049.00
599	h	40-63A FP MCB	1	No	1474.00
	2.15	ISOLATORS CONFIRMS TO I E C 60947 PART-III			
	ELEC-2.15.1	Supply of -----Isolator. Makes : Legrand-DX3 / Schneider-Acti9 / Siemens / L&T Exora / Cabtree / Indo Asian / BCH			
600	a	32A DP	1	No	521.00
601	b	40A DP	1	No	563.00
602	c	63A DP	1	No	748.00
603	d	40A TP	1	No	960.00
604	e	63A TP	1	No	1113.00
605	f	40A FP	1	No	1253.00
606	g	63A FP	1	No	1369.00
607	h	100A FP	1	No	1465.00
	ELEC-2.15.2	Supply of -----Isolator. Makes : ABB / Havells / HPL(Techno) / Hager / C&S / Honeywell sentry / Salzar			
608	a	32A DP	1	No	468.00
609	b	40A DP	1	No	491.00
610	c	63A DP	1	No	609.00
611	d	40A TP	1	No	848.00
612	e	63A TP	1	No	866.00
613	f	40A FP	1	No	996.00
614	g	63A FP	1	No	1071.00
615	h	100A FP	1	No	1346.00
	ELEC-2.15.3	Supply of -----Isolator.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Makes : Gold Medal / GM / Milltec / Sputnik / Benlo / Stanjo Amron.			
616	a	32A DP	1	No	322.00
617	b	40A DP	1	No	381.00
618	c	63A DP	1	No	515.00
619	d	40A TP	1	No	557.00
620	e	63A TP	1	No	631.00
621	f	40A FP	1	No	836.00
	2.16	SPN DISTRIBUTION BOARDS (AS PER IS:13032)			
		SPN DB			
	2.16.1	Supply of ----- Protection as per IS:13032 and suitable for-----S.P out goings and for 1 No Incommer etc complete. Makes : Legrand / Schneider / Siemens / L&T / Cabtree Xpro / ABB / C&S			
622	a	4 Way SPN DB with IP 20/30, 4 Nos	1	No	1223.00
623	b	4 Way SPN DB with IP 43, 4 Nos	1	No	1589.00
624	c	8 Way SPN DB with IP 20/30, 8 Nos	1	No	1411.00
625	d	8 Way SPN DB with IP 43, 8 Nos	1	No	1997.00
626	e	12 Way SPN DB with IP 20/30, 12 Nos	1	No	1676.00
627	f	12 Way SPN DB with IP 43, 12 Nos	1	No	2417.00
	2.16.2	Supply of -----Protection as per IS:13032 and suitable for-----S.P out goings and for 1 No Incommer etc complete. Makes : Havells / HPL / Hager / Indo Asian (Gold Plus) / Delton / Honeywell sentry / Benlo / Panasonic.			
628	a	4 Way SPN DB with IP 20/30, 4 Nos	1	No	748.00
629	b	4 Way SPN DB with IP 43, 4 Nos	1	No	1304.00
630	c	8 Way SPN DB with IP 20/30, 8 Nos	1	No	983.00
631	d	8 Way SPN DB with IP 43, 8 Nos	1	No	1817.00
632	e	12 Way SPN DB with IP 20/30, 12 Nos	1	No	1113.00
633	f	12 Way SPN DB with IP 43, 12 Nos	1	No	2167.00
	2.16.3	Supply of ----- Protection as per IS:13032 and suitable for-----S.P out goings and for 1 No Incommer etc complete. Makes : Gold Medal / GM / Milltec / Sputnik / Stanjo Amron.			
634	a	4 Way SPN DB with IP 20/30, 4 Nos	1	No	528.00
635	b	4 Way SPN DB with IP 43, 4 Nos	1	No	895.00
636	c	8 Way SPN DB with IP 20/30, 8 Nos	1	No	718.00
637	d	8 Way SPN DB with IP 43, 8 Nos	1	No	1217.00
638	e	12 Way SPN DB with IP 20/30, 12 Nos	1	No	879.00
639	f	12 Way SPN DB with IP 43, 12 Nos	1	No	1539.00
	2.17	TPN DISTRIBUTION BOARDS			
	2.17.1	Supply of ----- Protection as per IS:13032 and suitable for ----- S.P. out goings and for 1 No 4 pole Incommer (FP Isolator / MCB) etc complete Makes : Legrand / Schneider / Siemens /			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		L&T / Hager / Cabtree Xpro / ABB / C&S			
640	a	(8+12) 4 Way TPN DB Horizontal with IP 20/30, 12 Nos	1	No	2519.00
641	b	(8+12) 4 Way TPN DB Horizontal with IP 43, 12 Nos	1	No	4187.00
642	c	(8+18) 6 Way TPN DB Horizontal with IP 43, 18 Nos	1	No	6151.00
643	d	(8+24) 8 Way TPN DB Horizontal with IP 43, 24 Nos	1	No	6869.00
	2.17.2	Supply of ----- Protection as per IS:13032 and suitable for T.P. / S.P. out goings and for 1 No 4 pole Isolater / MCB Incommer etc complete Makes : Legrand / Schneider / Siemens / L&T / Hager / Cabtree Xpro / ABB / C&S			
644	a	4 Way VTPN DB with IP 43	1	No	10618.00
645	b	8 Way VTPN DB with IP 43	1	No	13648.00
	2.17.3	Supply of ----- Protection as per IS:13032 and suitable for accommodating T.P. / S.P. as out goings and 125A / 160A 4 pole MCCB as Incommer etc complete Makes : Legrand / Schneider / Siemens / L&T / Hager / Cabtree Xpro.			
646	a	4 Way VTPN DB with IP 43	1	No	13766.00
647	b	8 Way VTPN DB with IP 43	1	No	17281.00
	2.17.4	Supply of ----- Protection as per IS:13032 and suitable for ----- S.P. out goings and for 1 No 4 pole Incommer (FP Isolator / MCB) etc complete Makes : GE / Havells / HPL / Benlo / Panasonic / Delton / Indo Asian (Gold Plus) / Honeywell sentry			
648	a	(8+12) 4 Way TPN DB Horizontal with IP 20/30, 12 Nos	1	No	2343.00
649	b	(8+12) 4 Way TPN DB Horizontal with IP 43, 12 Nos	1	No	3690.00
650	c	(8+18) 6 Way TPN DB Horizontal with IP 43, 18 Nos	1	No	5126.00
651	d	(8+24) 8 Way TPN DB Horizontal with IP 43, 24 Nos	1	No	5858.00
	2.17.5	Supply of ----- Protection as per IS:13032 and suitable for T.P. / S.P. out goings and for 1 No (FP Isolator / MCB) incommer etc complete Makes : GE / Havells / HPL / Hager / Indo Asian (Gold Plus) / Honeywell sentry / Benlo.			
652	a	4 Way VTPN DB with IP 43	1	No	9154.00
653	b	8 Way VTPN DB with IP 43	1	No	11130.00
	2.17.6	Supply of ----- Protection as per IS:13032 and suitable for ----- S.P. out goings and for 1			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		No 4 pole Incommer (FP Isolator / MCB) etc complete Makes : Gold Medal / GM / Miltec / Sputnik / Stanjo Amron.			
654	a	(8+12) 4 Way TPN DB Horizontal with IP 20/30, 12 Nos	1	No	2080.00
655	b	(8+12) 4 Way TPN DB Horizontal with IP 43, 12 Nos	1	No	2695.00
656	c	(8+18) 6 Way TPN DB Horizontal with IP 43, 18 Nos	1	No	3515.00
657	d	(8+24) 8 Way TPN DB Horizontal with IP 43, 24 Nos	1	No	4130.00
	2.17.7	Supply of ----- Protection as per IS:13032 and suitable for T.P. / S.P. out goings and for 1 No (FP Isolator / MCB) Incommer etc complete Makes : Gold Medal / GM / Miltec / Sputnik / Stanjo Amron.			
658	a	4 Way VTPN DB with IP 43	1	No	5301.00
659	b	8 Way VTPN DB with IP 43	1	No	8450.00
	2.17.8	Supply of -----Plug and Socket with SS enclosure. Makes : Legrand / Schneider / Siemens / L&T / Hager / Cabtree Xpro / ABB / C&S			
660	a	20A SP	1	No	1516.00
661	b	20A TP	1	No	2857.00
662	c	32A TP	1	No	3362.00
	2.17.9	Supply of -----Plug and Socket with SS enclosure. Makes : Havells / HPL / Benlo / Panasonic / Delton / Indo Asian (Gold Plus) / Honeywell sentry			
663	a	20A SP	1	No	967.00
664	b	20A TP	1	No	1962.00
665	c	32A TP	1	No	2460.00
	2.17.10	Supply of -----Plug and Socket with SS enclosure. Makes : Gold Medal / GM / Milltec / Sputnik.			
666	a	20A SP	1	No	732.00
667	b	20A TP	1	No	1524.00
668	c	32A TP	1	No	2125.00
	2.17.11	Supply of ----- Metal Enclosure with IP 20/30 Protection. Makes : Legrand / Schneider / Siemens / L&T / Hager / Cabtree Xpro / ABB / C&S			
669	a	SP	1	No	456.00
670	b	DP/TP/FP	1	No	645.00
	2.17.12	Supply of ----- Metal Enclosure with IP 20/30 Protection. Makes : Havells / HPL / Benlo / Panasonic / Delton / Indo Asian (Gold Plus) / Honeywell sentry			
671	a	SP	1	No	411.00
672	b	DP/TP/FP	1	No	602.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	2.17.13	Supply of ----- Metal Enclosure with IP 20/30 Protection. Makes : Gold Medal / GM / Milltec / Sputnik.			
673	a	SP	1	No	369.00
674	b	DP/TP/FP	1	No	515.00
		SECTION - 3			
	3.1	POST TOP LED LUMINAIRES			
675	ELEC-3.1.1	Supply of 15-20W aesthetically designed LED post top lantern with die cast alluminium spigot, prismatic diffuser etc suitable for pole mounting complete with all accessories. Makes : Crompton / Bajaj / Surya / Havells / Phillips / Panasonic / Halonix / K Lite / Wipro / Polycab / FIEM / Jaquar .	1	No	6367.00
676	ELEC-3.1.2	Supply of 30-35W decorative LED post top lantern with die cast alluminium spigot, spun alluminium powder coated top cover, alluminium preasure die cast heat sink, opel PC diffuser and clear acrylic etc suitable for pole mounting complete with all accessories. Makes : Crompton / Bajaj / Surya / Havells / Phillips / Panasonic / Halonix / K Lite / Wipro / Polycab / FIEM / Jaquar .	1	No	10187.00
677	ELEC-3.1.3	Supply of 40-45W decorative LED post top lantern with die cast alluminium spigot, spun alluminium powder coated top cover, alluminium preasure die cast heat sink, opel PC diffuser and clear acrylic etc suitable for pole mounting complete with all accessories. Makes : Crompton / Bajaj / Surya / Havells / Phillips / Panasonic / Halonix / K Lite / Wipro / Polycab / FIEM / Jaquar .	1	No	12097.00
	3.2	AUTOMATIC STREET LIGHT CONTROL SYSTEMS			
	ELEC-3.2.1	Supply and fixing of Automatic Street Light Control System with Optical Sensor, Low volatage / High voltage trip and reset, operating voltage 150 - 280V AC, 50 HZ with suitable SMC enclousure of IP 54 protection, MCBs of Legrand / Schneider / L&T / Siemens of 10KA C/D curve and Contactor suitable to control the load of ----- Single phase load with necessary clamping arrangements. Makes : Swadeep Nature Switch / Light Mate / L&T / Siemens / Bajaj			
678	a	1 KW	1	No	10915.00
679	b	3 KW	1	No	13705.00
680	c	5 KW	1	No	14310.00
	ELEC-3.2.2	Supply and fixing of Automatic Street			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Light Control System with Optical Sensor, Low volatage / High voltage trip and reset, operating voltage 380 - 450 V AC, 50 HZ with suitable SMC enclosure of IP 54 protection, MCBs of Legrand / Schneider / L&T / Siemens of 10KA C/D curve and Contactor suitable to control the load of ----- Three phase load with necessary clamping arrangements. Makes : Swadeep Nature Switch / Light Mate / L&T / Siemens / Bajaj			
681	a	5 KW	1	No	17949.00
682	b	8 KW	1	No	18556.00
683	c	12 KW	1	No	22436.00
684	d	15 KW	1	No	27143.00
685	e	25 KW	1	No	35655.00
	ELEC-3.2.3	Supply and fixing of Automatic Street Light Controler with optical micro scanner low voltage/ High Voltage trip and reset operating voltage 150 - 280V AC,with stands upto 440V , 50 HZ with suitable ABS enclosure of IP 54 protection, suitable to control the load of 10A of single phase with necessary arrangements etc complete. Makes : Swadeep /Super tech (Light Mate)/ L&T / Siemens / Bajaj			
686	a	SLASM-01-10A /equivalent (Dusk to Dawn)	1	No	4043.00
687	b	SLASM-02-10A /equivalent (Time setting after 4 hr)	1	No	5198.00
688	c	SLASM-03-10A /equivalent (Time setting 4hr, 6Hr, 8Hr)	1	No	4851.00
	ELEC-3.2.4	Supply and fixing of Automatic Street Light Control system with CCMS to schedule the timing of lights (Reprogrammed based on astronomical clock or on field or through central control), ON / OFF switch (On field or centrally). CCMS system to capture the energy usage and other parameters at predetermined interval and store data for 30 days, download data in field via mobile app or mobile dash board, system protection against surges, upgrade formway on field using a communication device via WIFI / GSM and GPRS low voltage / High Voltage Trip, Overload cutoff and operating voltage 382 - 450 Volts, 50 Hzs with SMC enclosure of IP 54 protection, MCBs of Legrand / Schneider/ Hager, single pole C curve of breaking capacity 10 kA and power contactor / Latching Relay suitable to control the load ----- KW of single phase / three phase with necessary clamping arrangement. etc complete.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Makes : Swadeep / Super tech (Light Mate) / iScientific Techsolutions Labs			
689	a	3 KW	1	No	15750.00
690	b	5 KW	1	No	18900.00
691	c	8 KW	1	No	23100.00
692	d	12 KW	1	No	27300.00
693	e	15 KW	1	No	30450.00
694	f	18 KW	1	No	34650.00
695	g	25 KW	1	No	44100.00
	ELEC-3.2.5	Supply and fixing of Automatic Street Light Control system with smart energy meter / CCMS to schedule the timing of lights (Reprogrammed based on astronomical clock or on field or through central control), ON / OFF switch (On field or centrally). CCMS system to capture the energy usage and other parameters at predetermined interval and store data for 30 days, download data in field via mobile app or mobile dash board, system protection against surges, upgrade formway on field using a communication device via WIFI / GSM and GPRS low voltage / High Voltage Trip, Overload cutoff and operating voltage 382 - 450 Volts, 50 Hzs with SMC enclosure of IP 54 protection, MCBs of Legrand / Schneider/ Hager, single pole C curve of breaking capacity 10 kA and power contactor / Latching Relay suitable to control the load ----- KW of single phase / three phase with necessary clamping arrangement. etc complete. Makes : Swadeep /Super tech (Light Mate) / iScientific Techsolutions Labs			
696	a	3 KW	1	No	26250.00
697	a	5 KW	1	No	29400.00
698	a	8 KW	1	No	33600.00
699	a	12 KW	1	No	37800.00
700	a	15 KW	1	No	40950.00
701	a	18 KW	1	No	45150.00
702	a	25 KW	1	No	54600.00
	3.3	ACCESSORIES			
		Makes For the Following Items : Phillips / Crompton / Bajaj / Surya / HPL / Havells.			
703	ELEC-3.3.1	Supply of 9/13W VPIT Ballast for CFL with ISI mark.	1	No	102.00
704	ELEC-3.3.2	Supply of 18W VPIT Ballast for CFL with ISI mark.	1	No	96.00
705	ELEC-3.3.3	Supply of 20W / 40W Copper Wound Ballast.	1	No	128.00
706	ELEC-3.3.4	Supply of 18/20W VPIT Ballast.	1	No	128.00
707	ELEC-3.3.5	Supply of 36/40W VPIT Ballast of makes Phillips / Crompton / Bajaj / Surya.	1	No	168.00
708	ELEC-3.3.6	Supply of 40W Starter of makes Phillips /	1	No	9.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Crompton / Bajaj / Surya.			
709	ELEC-3.3.7	Supply of Rotor holder(FTL).	1	No	17.00
710	ELEC-3.3.8	Supply of HID Lamp holder.	1	No	43.00
711	ELEC-3.3.9	Supply of CFL holder of makes Phillips / Crompton / Bajaj / Surya.	1	No	26.00
712	ELEC-3.3.10	Supply of FTL Starter holder.	1	No	13.00
		Makes For the Following Items : Fortune Arrt / Style Lamp / Mahita Electro / Capart			
713	ELEC-3.3.11	Supply of 9/13W VPIT Ballast for CFL with ISI mark.	1	No	88.00
714	ELEC-3.3.12	Supply of 18W VPIT Ballast for CFL with ISI mark.	1	No	88.00
715	ELEC-3.3.13	Supply of 20W / 40W Copper Wound Ballast.	1	No	118.00
716	ELEC-3.3.14	Supply of 18/20W VPIT Ballast.	1	No	117.00
717	ELEC-3.3.15	Supply of 36/40W VPIT Ballast of makes Phillips / Crompton / Bajaj / Surya.	1	No	136.00
718	ELEC-3.3.16	Supply of 40W Starter of makes Phillips / Crompton / Bajaj / Surya.	1	No	8.00
719	ELEC-3.3.17	Supply of Rotor holder(FTL).	1	No	15.00
720	ELEC-3.3.18	Supply of HID Lamp holder.	1	No	34.00
721	ELEC-3.3.19	Supply of CFL holder of makes Phillips / Crompton / Bajaj / Surya.	1	No	21.00
722	ELEC-3.3.20	Supply of FTL Starter holder.	1	No	10.00
723	ELEC-3.3.21	Supply of 36W Electronic Ballast with total harmonic distortion is less than 10% for FTL. Makes : Phillips / Crompton / Bajaj / Surya / HPL / Havells.	1	No	492.00
724	ELEC-3.3.22	Supply of 36W Electronic ballast with power factor greater than 0.9 to 0.95 suitable for FTL. Make : Crompton / Bajaj / Havells or its equivalent.	1	No	221.00
725	ELEC-3.3.23	Supply of Bulk head fitting with cast aluminium enamel painted body with water tight, clear glass with wire guard hinged with lock and key arrangements etc., complete. Makes : Bajaj / Crompton / Surya.	1	No	280.00
726	ELEC-3.3.24	Supply of single fancy bracket with glass shade best Indian make	1	No	173.00
727	ELEC-3.3.25	Supply of double fancy bracket with glass shade best Indian make	1	No	309.00
	3.4	FLOURSCENT TUBES / CFL LAMPS			
		Makes for the following items: Phillips / Crompton / Bajaj / Surya / Style Lamp / Mahita Electro / Capart.			
728	ELEC-3.4.1	Supply of 40W-60W Lamp.	1	No	11.00
729	ELEC-3.4.2	Supply of Night Lamp.	1	No	10.00
730	ELEC-3.4.3	Supply of 18/20W fluorescent tube. Makes : Phillips / Crompton / Bajaj / Surya.	1	No	37.00
731	ELEC-3.4.4	Supply of 36/40W fluorescent tube.	1	No	40.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Makes : Phillips / Crompton / Bajaj / Surya.			
732	ELEC-3.4.5	Supply of 36/40W fluorescent tube. Makes : Fortune Arrt / Style lamp / Mahita Electro / Capart	1	No	34.00
733	ELEC-3.4.6	Supply of 28W T5 fluorescent tube. Makes : Crompton / Bajaj / Phillips / Surya / Havells.	1	No	107.00
	ELEC-3.4.7	Supply of ----- Pin type CFL Lamp. Makes : Phillips / Crompton / Bajaj / Surya / Havells / HPL / Halonix.			
734	a	9W	1	No	67.00
735	b	11W	1	No	72.00
736	c	13W	1	No	94.00
737	d	18W	1	No	103.00
738	e	26W	1	No	143.00
739	f	36W	1	No	120.00
	ELEC-3.4.8	Supply of ----- Retrofit tiny CFL. Makes : Phillips / Crompton / Bajaj / Surya / Havells / HPL / Halonix.			
740	a	Up to 5W	1	No	103.00
741	b	Up to 8W	1	No	112.00
742	c	Up to 10/11W	1	No	120.00
743	d	Up to 13/14W	1	No	98.00
744	e	15W	1	No	160.00
745	f	Up to 18/20W Retrofit CFL.	1	No	152.00
746	g	23W Retrofit CFL.	1	No	178.00
747	h	Up to 25/26W Retrofit CFL.	1	No	178.00
	3.5	LED LUMINAIRES INDOOR			
	ELEC-3.5.1	Supply and transportation of ----- LED Spot Light Recessed mounting with housing made of Powder coated Pressure die cast aluminium, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >100 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE : Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Kselec/ FIEM / Arraystorm / GM / Goldmedal. LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
748	a	5 W / 6 W +/-10% (>= 600 Lumens)	1	No	484.00
749	b	7 W +/-10% (>= 700 Lumens)	1	No	977.00
	ELEC-3.5.2	Supply and transportation of ----- LED Spot Light Recessed mounting with			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		housing made of Powder coated Pressure die cast aluminium , IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >90 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE : Fortune Arrt / Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Promptec / Lighting Technologies / Renesola / C&S / RR Electric / Rhino			
750	a	5 W / 6 W +/-10% (>= 550 Lumens)	1	No	340.00
751	b	7 W +/-10% (>= 650 Lumens)	1	No	748.00
	ELEC-3.5.3	Supply and transportation of ----- - LED Spot Light Recessed mounting with housing made of Powder coated Pressure die cast aluminium , IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >80 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / JSTC Solar / Vimal / Taiyolux / Link Well / RYON / Kiran / Pharox / Mulex / Benlo.			
752	a	5 W / 6 W +/-10% (>= 500 Lumens)	1	No	310.00
753	b	7 W +/-10% (>= 600 Lumens)	1	No	578.00
	ELEC-3.5.4	Supply and transportation of ----- back lit LED Down Light Recessed / Surface mounting round / square with housing made of Powder coated Pressure die cast aluminium housing with extended heat sink, with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >100 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE : Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec / FIEM / Arraystorm / GM / Goldmedal LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
754	a	12 W +/-10% (>= 1200 Lumens)	1	No	1283.00
755	b	15 W +/-10% (>= 1500 Lumens)	1	No	1373.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
756	c	18 W +/-10% ($\geq$ 1800 Lumens)	1	No	1583.00
757	d	24 W +/-10% ($\geq$ 2400 Lumens)	1	No	1776.00
	ELEC-3.5.5	Supply and transportation of ----- back lit LED Down Light Recessed / Surface mounting round/ square with housing made of Powder coated Pressure die cast aluminium housing with extended heat sink, with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >90 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE : Fortune Arrt / Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Promptec / Lighting Technologies / Renesola / C&S / Luker / RR Electric / Rhino			
758	a	12 W +/-10% ($\geq$ 1100 Lumens)	1	No	969.00
759	b	18 W +/-10% ($\geq$ 1600 Lumens)	1	No	1130.00
	ELEC-3.5.6	Supply and transportation of ----- back lit LED Down Light Recessed / Surface mounting with housing made of Powder coated Pressure die cast aluminium housing with extended heat sink, with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >80 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / JSTC Solar / Vimal / Taiyolux / Link Well / RYON / Lumens (India) / Kiran / Pharox / Mulex / Benlo / Savitha / Accent / Deepal.			
760	a	12 W +/-10% ($\geq$ 1000 Lumens)	1	No	646.00
761	b	18 W +/-10% ($\geq$ 1400 Lumens)	1	No	888.00
	ELEC-3.5.7	Supply and transportation of ----- edge lit LED slimline panel light Housing made of Pressure die cast aluminium with Powder coated, round / Square with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >90 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 2 years warranty with BIS Certification. LUMINAIRE MAKE : Phillips / OSRAM /			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec/ FIEM / Arraystorm / GM / Goldmedal LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
762	a	6W +/-10% (>= 540 Lumens)	1	No	533.00
763	b	12W +/-10% (>= 1080 Lumens)	1	No	727.00
764	c	15W +/-10% (>= 1350 Lumens)	1	No	969.00
765	d	18W +/-10% (>= 1620 Lumens)	1	No	1050.00
	ELEC-3.5.8	Supply and transportation of ----- edge lit LED slimline panel Light Housing made of Pressure die cast aluminium with Powder coated, round / Square with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >80 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 2 years warranty. LUMINAIRE MAKE : Fortune Arrt / Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Promptec / Lighting Technologies / Renesola / C&S / Luker / RR Electric / Rhino			
766	a	12W +/-10% (>= 960 Lumens)	1	No	598.00
767	b	18W +/-10% (>= 1440 Lumens)	1	No	847.00
	ELEC-3.5.9	Supply and transportation of ----- edge lit LED slimline panel Light Housing made of Pressure die cast aluminium with Powder coated, round / Square with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >70 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 2 years warranty. LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / JSTC Solar / Vimal / Taiyolux / Link Well / RYON / Kiran / Pharox / Mulex / Benlo / Savitha / Accent / Deepal.			
768	a	12W +/-10% (>= 940 Lumens)	1	No	541.00
769	b	18W +/-10% (>= 1260 Lumens)	1	No	783.00
770	ELEC-3.5.10	Supply and transportation of 20W +/-10%, >/ 2000 lumens, 1200mm length LED retro tube light, housing made with alluminium anodised body, wide operating voltage with double side connection, PF≥0.9, Surge protection: > 2KV, THD<15%, with inbuilt driver	1	No	560.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		and frosted cover CCT: 3000K - 6500K as desired by the department and as per IS specifications, minimum CRI $\geq$ 80,.etc complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE: Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec/ FIEM / Arraystorm / GM / Goldmedal LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
771	ELEC-3.5.11	Supply and transportation of 20W +/-10%, 1900 lumens, 1200mm length LED retro tube light, housing made with alluminium anodised body, wide operating voltage, double side connection, with PF $\geq$ 0.9, Surge protection: > 2KV, THD<10%, with inbuilt driver and frosted cover CCT: 3000K - 6500K as desired by the department and as per IS specifications, minimum CRI $\geq$ 80,.etc.complete with 5 years warranty. LUMINAIRE MAKE: Fortune Arrt / Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Promptec / Lighting Technologies / Renesola / C&S / Luker / RR Electric / Rhino	1	No	460.00
772	ELEC-3.5.12	Supply and transportation of 20W +/-10%, 1800 lumens, 1200mm length LED retro tube light, housing made with alluminium anodised body, wide operating voltage, with double side connection, with PF $\geq$ 0.9, Surge protection: > 2KV, THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 5700K, minimum CRI $\geq$ 70,.etc.,complete with 5 years warranty. LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / JSTC Solar / Vimal / Taiyolux / Link Well / RYON / Lumens (India) / Kiran / Pharox / Mulex / Benlo / Savitha / Accent / Deepal.	1	No	422.00
773	ELEC-3.5.13	Supply and transportation of 20W +/-10%, >/ 2000 lumens, 1200mm length LED retro tube light, housing made with glass body, wide operating voltage with Single / double side connection, PF $\geq$ 0.9, Surge protection: > 2KV, THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 6500K as desired by the department and as per IS specifications, minimum CRI $\geq$ 80,.etc complete with 5 years warranty with BIS	1	No	326.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Certification. LUMINAIRE MAKE: Phillips / OSRAM / GE Venture / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec / Arraystorm / GM / Goldmedal LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
774	ELEC-3.5.14	Supply and transportation of 20W +/-10%, >/ 2000 lumens, 1200mm length LED retro tube light, housing made with PC body, wide operating voltage with Single / double side connection, PF≥0.9, Surge protection: > 2KV, THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 6500K as desired by the department and as per IS specifications, minimum CRI≥80,.etc complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE: Phillips / OSRAM / GE Venture / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec/ FIEM / Arraystorm / GM / Goldmedal LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.	1	No	403.00
775	ELEC-3.5.15	Supply and transportation of 10W, 1000 lumens, 600mm length LED batten tube light, housing made with PC body, wide operating voltage with Single / double side connection, PF≥0.9, Surge protection: > 2KV, THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 6500K as desired by the department and as per IS specifications, minimum CRI≥80,.etc complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE: Phillips / OSRAM / GE Venture / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec / Arraystorm / GM / Goldmedal LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.	1	No	404.00
776	ELEC-3.5.16	Supply and transportation of 22W +/- 10% , >/ 2300 lumens, 1200mm length LED light housing made with alluminium anodised body, wide operating voltage with PF≥0.9, Surge protection: > 2KV, THD<10%, with inbuilt driver and frosted cover CCT: 3000K - 6500K as desired by the department as per IS, minimum CRI≥80 etc., complete with 5 years warranty with BIS	1	No	646.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Certification with BIS Certification. LUMINAIRE MAKE: Phillips / OSRAM / GE Venture / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec/ FIEM / Arraystorm / GM / Goldmedal LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
	ELEC-3.5.17	Supply and Transportation of Edge lit, 2' x2' (600mm x 600mm) slim panel LED luminaire Square Housing Made of Aluminum alloy with corrosion resistant powder coat, with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >90 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI >80, and THD is less than 15% with non integrated driver etc., complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE : Phillips / OSRAM / GE Venture / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec / FIEM / Arraystorm / GM / Goldmedal LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
777	a	32-36W (>=3240 Lumens)	1	No	2923.00
778	b	40-42W (>=3600 Lumens)	1	No	3230.00
779	c	45W (>=4050 Lumens)	1	No	3391.00
780	ELEC-3.5.18	Supply and Transportation of 36W Edge lit, 2' x2' (600mm x 600mm) slim panel LED luminaire Square Housing Made of Aluminum alloy with corrosion resistant powder coat, with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >80 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI >80, and THD is less than 15% with non integrated driver etc., complete with 5 years warranty. LUMINAIRE MAKE: Fortune Arrt / Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Promptec / Lighting Technologies / Renesola / C&S / Luker / RR Electric / Rhino	1	No	2600.00
781	ELEC-3.5.19	Supply and Transportation of 36W Edge lit 2' x2' (600mm x 600mm) Slim panel LED luminaire Square Housing Made of Aluminum alloy with corrosion resistant	1	No	2414.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		powder coat, with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >70 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI >80, and THD is less than 15% with non integrated driver etc., complete with 5 years warranty. LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / JSTC Solar / Vimal / Taiyolux / Link Well / RYON / Lumens (India) / Kiran / Pharox / Mulex / Benlo / Savitha / Accent / Deepal.			
	ELEC-3.5.20	Supply and Transportation of ----- ----- Back lit, 2' x2' (600mm x 600mm) Recessed / Surface mounted LED luminaire made of CRCA sheet housing with powder coated with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >100 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI >80, and THD is less than 15% etc., complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE : Phillips / OSRAM / GE Venture / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec / FIEM / Arraystorm / GM / Goldmedal LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
782	a	30-36 W +/-10% (>=3600 Lumens)	1	No	2995.00
783	b	40-42 W +/-10% (>=4200 Lumens)	1	No	3149.00
784	c	45 W +/-10% (>=4500 Lumens)	1	No	3343.00
	ELEC-3.5.21	Supply and Transportation of ----- Back lit, 2' x2' (600mm x 600mm) Recessed / Surface mounted LED luminaire made of CRCA sheet housing with powder coated with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >90 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE: Fortune Arrt / Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Promptec / Lighting Technologies / Renesola / C&S / Luker / RR Electric / Rhino			
785	a	36 W +/-10% (>=3200 Lumens)	1	No	2414.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
786	b	45 W +/-10% (>=4000 Lumens)	1	No	2923.00
	ELEC-3.5.22	Supply and Transportation of ----- Back lit, 2' x2' (600mm x 600mm) Recessed / Surface mounted LED luminaire made of CRCA sheet housing with powder coated with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >80 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / JSTC Solar / Vimal / Taiyolux / Link Well / RYON / Lumens (India) / Kiran / Pharox / Mulex / Benlo / Savitha / Accent / Deepal.			
787	a	36 W +/-10% (>=2900 Lumens)	1	No	2269.00
788	b	45 W +/-10% (>=3600 Lumens)	1	No	2503.00
789	ELEC-3.5.23	Supply and transportation of MS frame with powder coating suitable for 600mm x 600mm LED panel light.	1	No	479.00
790	ELEC-3.5.24	Supply & Fixing of pre wired Patty type batten frame made with CRCA sheet powder coated suitable for LED tube light.	1	No	137.00
791	ELEC-3.5.25	Supply & Fixing of decorative pre wired box type fixture made with CRCA sheet powder coated suitable for 4' LED tube light	1	No	266.00
	3.60	LED INDOOR LAMPS			
	ELEC-3.6.1	Supply of ----- with input voltage 90 to 300V, Colour temperature 3000k - 6500k, Beam angle 170 - 220 degrees, B22 base. Makes: Phillips / OSRAM / Crompton / Eveready / Bajaj / Havells / Pharox / Halonix / Greenlites / IB LED/ Jaquar / C&S / GM / / FIEM / Gold Medal / Million / Syska.			
792	a	0.5W LED Lamp	1	No	39.00
793	b	3.0W LED Lamp	1	No	88.00
794	c	5.0W LED Lamp	1	No	97.00
795	d	7.0W LED Lamp	1	No	104.00
796	e	9.0W LED Lamp	1	No	121.00
797	f	12.0W LED Lamp	1	No	181.00
798	g	15.0W LED Lamp	1	No	201.00
799	h	18.0W LED Lamp	1	No	262.00
800	i	30.0W LED Lamp	1	No	545.00
801	j	40.0W LED Lamp	1	No	707.00
802	k	50.0W LED Lamp	1	No	928.00
803	ELEC-3.6.2	Supply of LED Candel Lamp for shandliers. Makes: Phillips / OSRAM / Crompton /	1	No	233.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Eveready / Bajaj / Havells / Pharox / Halonix / Greenlites / IB LED/ Jaquar / C&S / GM / Gold Medal / Million / Syska.			
	3.7	LED STREET LIGHTS			
	ELEC-3.7.1	Supply and transportation of LED Street light Body made of high grade pressure die - cast Aluminium alloy with corrosion resistant powder coat, having protective toughened glass cover, Suitable lens on LEDs, Less Glare, IP 66 (Silicon gasket ensures Optical & Electrical compartments are IP 66) protected, wide operating voltage range, P.F > 0.90, System having efficacy >110 lumens/watt, with Ingress protection IP66, Potted driver, Driver surge protection >10KV, THD<15%, CCT: 3000-6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open Circuit, Miswiring, etc complete with BIS certification with 5 years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates. LUMINAIRE MAKE : PHILIPS / OSRAM / GE Venture / CROMPTON / BAJAJ / Surya / Wipro / Jaquar / Eveready / Halonix / Keselec / HAVELLS / POLYCAB / SURYA / SYSKA / Capart / Fortune Arrt / FIEM / Panasonic / Arraystorm / GM / Goldmedal / Silicon / Leksa / Orient / HPL / Valmont Transrail LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
804	a	20 W +/-10% (>=2000 Lumens)	1	No	1534.00
805	b	30 W +/-10% (>=3000 Lumens)	1	No	2140.00
806	c	43 / 45 W +/-10% (>=4500 Lumens)	1	No	3074.00
807	d	60 / 65 W +/-10% (>=6500 Lumens)	1	No	4603.00
808	e	72 W +/-10% (>=7200 Lumens)	1	No	5006.00
809	f	90W +/-10% (>=9000 Lumens)	1	No	6823.00
810	g	100 W +/-10% (>=10000 Lumens)	1	No	7590.00
811	h	110 W +/-10% (>=11000 Lumens)	1	No	8398.00
812	i	120 W +/-10% (>=12000 Lumens)	1	No	8882.00
813	j	150 W +/-10% (>=15000 Lumens)	1	No	10901.00
814	k	180 W +/-10% (>=18000 Lumens)	1	No	11870.00
815	l	210 W +/-10% (>=21000 Lumens)	1	No	16150.00
	ELEC-3.7.2	Supply and transportation of LED Street light Body made of high grade pressure die - cast Aluminium alloy with corrosion resistant powder coat, having protective toughened glass cover, Suitable lens on LEDs, Suitable lens on LEDs, Less Glare, IP 66 (Silicon gasket			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		ensures Optical & Electrical compartments are IP 66) protected, wide operating voltage range, P.F > 0.90, System having efficacy >100 lumens/watt, with Ingress protection IP66, Driver surge protection >10KV, THD<15%, CCT: 3000- 6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open Circuit, Miswiring, etc complete with 5 years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates. LUMINAIRE MAKE : VIN / MILLION / C&S / RR Electric / IB LED / MIC / Promptec / Luker / Lumens (India) / Sieger / Renesola / TRINIC / STANJO / Rhino			
816	a	20 W +/-10% (>=1800 Lumens)	1	No	1389.00
817	b	30 W +/-10% (>=2700 Lumens)	1	No	2019.00
818	c	43 / 45 W +/-10% (>=4050 Lumens)	1	No	2907.00
819	d	60 / 65 W +/-10% (>=5850 Lumens)	1	No	4118.00
820	e	72 W +/-10% (>=6480 Lumens)	1	No	4522.00
821	f	90W +/-10% (>=8100 Lumens)	1	No	6137.00
822	g	100 W +/-10% (>=9000 Lumens)	1	No	6864.00
823	h	110 W +/-10% (>=9900 Lumens)	1	No	7671.00
824	i	120 W +/-10% (>=10800 Lumens)	1	No	7994.00
	ELEC-3.7.3	Supply and transportation of LED Street light Body made of high grade pressure die - cast Aluminium alloy with corrosion resistant powder coat, having protective toughened glass cover, Suitable lens on LEDs, Less Glare, IP 66 (Silicon gasket ensures Optical & Electrical compartments are IP 66) protected, wide operating voltage range, P.F > 0.90, System having efficacy >90 lumens/watt, with Ingress protection IP66, Driver surge protection >10KV, THD<15%, CCT: 3000- 6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open Circuit, Miswiring, etc complete with 5 years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates. LUMINAIRE MAKE : COSMO / KASHYAP BLU / PRO-LITE / SCINTILLA / TAIYOLUX / LINK WELL / RYON / Mulex / Kiran / Benlo / Savitha / Accent / Deepal.			
825	a	20 W +/-10% (>=1600 Lumens)	1	No	1332.00
826	b	30 W +/-10% (>=2400 Lumens)	1	No	1938.00
827	c	43 / 45 W +/-10% (>=3600 Lumens)	1	No	2745.00
828	d	60 / 65 W +/-10% (>=5200 Lumens)	1	No	3876.00
829	e	90W +/-10% (>=7200 Lumens)	1	No	5814.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
830	f	100 W +/-10% (>=8000 Lumens)	1	No	6460.00
831	g	110 W +/-10% (>=8800 Lumens)	1	No	7267.00
832	h	120 W +/-10% (>=9600 Lumens)	1	No	7510.00
		LED FLOOD LIGHTS			
	ELEC-3.7.4	Supply and transportation of LED Flood light Luminaire made of pressure die cast aluminum housing with powder coated, having toughened glass cover, Suitable lens on LEDs, IP 66 (Silicon gasket ensures Optical & Electrical compartments are IP 66)protected, wide operating voltage range , P.F > 0.90, System having efficacy >110 lumens/watt, with Ingress protection IP66, Driver surge protection >10KV, THD<15%, CCT: 3000- 6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open Circuit, Miswiring, etc complete with BIS certification with 5 years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates. LUMINAIRE MAKE : PHILIPS / OSRAM / GE Venture / CROMPTON / BAJAJ / Surya / Wipro / Jaquar / Eveready / Halonix / Keselec / HAVELLS / POLYCAB / SURYA / SYSKA./ Capart / Fortune Arrt / FIEM / Arraystorm / GM / Goldmedal / Panasonic / Silicon / Leksa / Orient / HPL / Valmont / Transrail LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
833	a	60 W +/-10% (>=6000 Lumens)	1	No	5443.00
834	b	90 W +/-10% (>=9000 Lumens)	1	No	7621.00
835	c	120 W +/-10% (>=12000 Lumens)	1	No	10234.00
836	d	150 W +/-10% (>=15000 Lumens)	1	No	13120.00
837	e	200 W +/-10% (>=20000 Lumens)	1	No	15855.00
838	f	250 W +/-10% (>=25000 Lumens)	1	No	18559.00
	ELEC-3.7.5	Supply and transportation of LED Flood light Luminaire made of pressure die cast aluminum housing with powder coated, having toughened glass cover, Suitable lens on LEDs, IP 66 (Silicon gasket ensures Optical & Electrical compartments are IP 66)protected, wide operating voltage range , P.F > 0.90, System having efficacy >100 lumens/watt, with Ingress protection IP66, Driver surge protection >10KV, THD<15%, CCT: 3000- 6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Circuit, Miswiring, etc complete with 5 years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates. LUMINAIRE MAKE : VIN / MILLION / C&S / RR Electric / IB LED / MIC / Promptec / Luker / Lumens (India) / Sieger / Renesola / TRINIC / STANJO / Rhino			
839	a	60 W +/-10% (>=5400 Lumens)	1	No	4587.00
840	b	90 W +/-10% (>=8100 Lumens)	1	No	6783.00
841	c	120 W +/-10% (>=10800 Lumens)	1	No	8519.00
842	d	150 W +/-10% (>=13500 Lumens)	1	No	10078.00
	ELEC-3.7.6	Supply and transportation of LED Flood light Luminaire made of pressure die cast aluminum housing with powder coated, having toughened glass cover, Suitable lens on LEDs, IP 66 (Silicon gasket ensures Optical & Electrical compartments are IP 66)protected, wide operating voltage range , P.F > 0.90, System having efficacy >90 lumens/watt, with Ingress protection IP66, Driver surge protection >10KV, THD<15%, CCT: 3000-6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open Circuit, Miswiring, etc complete with 5 years warranty.The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates. LUMINAIRE MAKE : COSMO / KASHYAP BLU / PRO-LITE / SCINTILLA / TAIYOLUX / LINK WELL / RYON / Mulex / Kiran / Benlo / Savitha / Accent / Deepal.			
843	a	60 W +/-10% (>=4800 Lumens)	1	No	4013.00
844	b	90 W +/-10% (>=7200 Lumens)	1	No	5927.00
845	c	120 W +/-10% (>=9600 Lumens)	1	No	7453.00
846	d	150 W +/-10% (>=12000 Lumens)	1	No	9068.00
		NOTE : The concerned Engineer has to verify the following certificates and allow the product to use.			
		1. LM 79, LM 80 certificate			
		2. BIS Certificate			
		3. CRI / THD Certificate			
		4. Surge Protection >/ 2 KV for indoor & >/ 10 KV for outdoor			
		5. Manufacturer must produce NABL certified test reports			
		6. Guarantee letter from Manufacturer with project name. In case of failure deduct 20% from the rates.			
		7.The Manufacturer Must have sufficient pick and paste machines.			
		8. The Manufacturer must of IP test			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		facility.			
		9. The Manufacturer must use good lenses.			
		10. The field engineers has to verify the rates and models propose in estimate.			
	ELEC-3.7.7	Supply and transportation of LED Hlgh Bay Luminaire with high power COB LED made of pressure diecast alluminium housing with powder coated, Supply Input voltage 120 - 270 V AC, P.F > 0.90, high power LED's, System efficacy >100 lm / W and junction temprature < 70°C, with Ingrees protection IP65, IK05, Driver surge protection 4KV, external Surge protection ≥ 5KV with wide/ Narrow beam optics, THD<10% at 110 Volts AC, driver efficiency >90%, CCT: 3000K - 5700K, minimum CRI>70, etc., complete with BIS certification with warranty 5 years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates. LUMINAIRE MAKE : PHILIPS / OSRAM / GE Venture / CROMPTON / BAJAJ / Wipro / Jaquar / Panasonic / Eveready / Halonix / Keselec / HAVELLS / SURYA / SYSKA / Arraystorm / GM / Goldmedal / Leksa / Orient LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
847	a	60 W +/-10% (>6000 Lumens)	1	No	6904.00
848	b	90 W +/-10% (>9000 Lumens)	1	No	8438.00
849	c	120 W +/-10% (>12000 Lumens)	1	No	9972.00
850	d	150 W +/-10% (>15000 Lumens)	1	No	11506.00
851	ELEC-3.7.8	Supply and transportation of 10W LED Bulk head fitting with milky diffuser heat sink integrated with housing with all accessories etc complete with 5 years warranty warranty. LUMINAIRE MAKE : PHILIPS / OSRAM / GE / CROMPTON / BAJAJ / Keselec / Fortune Arrt / HALONIX / HAVELLS / HPL / SYSKA / SURYA / Arraystorm / GM / Goldmedal / Jaquar / Panasonic / Leksa / Orient LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.	1	No	864.00
	ELEC-3.7.9	Supply and transportation of LED well glass fitting madeup of pressure die cast alluminium, integrated heat sink, dedicated mounting bracket, with all accessories etc complete with 5 years warranty warranty. LUMINAIRE MAKE : PHILIPS / OSRAM / GE / CROMPTON / BAJAJ / Keselec / Fortune Arrt / HALONIX / HAVELLS / HPL			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		/ SYSKA / SURYA / Arraystorm / GM / Goldmedal / Jaquar / Panasonic / Leksa / Orient LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
852	a	25 W +/-10% (>=2500 Lumens)	1	No	2422.00
853	b	35 W +/-10% (>=3500 Lumens)	1	No	2907.00
854	c	40 W +/-10% (>=4000 Lumens)	1	No	3472.00
855	d	45 W +/-10% (>=4500 Lumens)	1	No	3876.00
	3.8	LED DRIVERS			
	ELEC-3.8.1	Supply and transportation of LED Driver with input line voltage 120V-270V AC, 50Hz with surge protection more than 2.5 KV, IP20, suitable for----- LED down lighter. MAKES : PHILIPS / OSRAM / GE / CROMPTON / BAJAJ / Keselec / HALONIX / HAVELLS / HPL / SURYA / SYSKA / Jaquar / Arraystorm / GM / Goldmedal / PRO-LITE			
856	a	6 W / 9 W	1	No	265.00
857	b	12 W / 18 W / 20W / 22 W LED	1	No	390.00
858	c	36W	1	No	603.00
859	d	40 W / 45 W	1	No	729.00
	ELEC-3.8.2	Supply and transportation of LED Driver with input line voltage 120V-270V AC, 50Hz with surge protection more than 2.5 KV, IP20, suitable for----- LED down lighter.MAKES : PHAROX / AVNI / GOLDWYN / KRIPA LIGHTS / Fortune Arrt / STANJO / GREENLITES / TRINIC / SCINTILLA / JSTC - SOLAR / INSTA POWER / MILLION / PANASONIC / VIN.			
860	a	6 W / 9 W	1	No	225.00
861	b	12 W / 18 W / 20W / 22 W LED	1	No	333.00
862	c	36W	1	No	518.00
863	d	40 W / 45 W	1	No	628.00
	ELEC-3.8.3	Supply and transportation of LED Driver with input line voltage 120V-270V AC, 50Hz with surge protection of 4.0 KV, IP20, suitable for -----LED street light fitting. Makes : PHILIPS / OSRAM / GE / CROMPTON / BAJAJ / Keselec / VIN / HALONIX / HAVELLS / HPL / SURYA / SYSKA / Jaquar / Arraystorm / GM / Goldmedal			
864	a	15-30W	1	No	441.00
865	b	45-80W	1	No	922.00
866	c	90-180W	1	No	1759.00
	ELEC-3.8.4	Supply and transportation of LED Driver with input line voltage 120V-270V AC, 50Hz with surge protection of 4.0 KV, IP20, suitable for -----LED street light			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		fitting. MAKES : PHAROX / AVNI / GOLDWYN / KRIPA LIGHTS / Fortune Arrt / STANJO / GREENLITES / TRINIC / PRO-LITE / SCINTILLA / JSTC - SOLAR / INSTA POWER / MILLION / PANASONIC.			
867	a	15-30W	1	No	408.00
868	b	45-80W	1	No	868.00
869	c	90-180W	1	No	1659.00
		INTEGRATED STREET LIGHTING (SOLAR)			
	ELEC-3.8.5	Supply and transportation of Integrated IP 65 Solar Street Light with ABS + Polycarbonate body , Poly crystal Solar panel with pool white SMD LED Light, Beam angle 120 degrees, Reflector, Charging time is minimum 6 Hrs and maximum 8 Hrs, Lighting Time 10 to 12 Hrs (Subject to using dusk to dawn / Induction Mode / Duration Mode of Timers), used High efficiency LiFe PO 4, Battery, Dusk to dawn sensor, Induction Mode, Auto dim and Auto Bright, Motion sensor and also facilitate duration based timer of 2 / 4 / 6 Hrs. MAKES : Havells / Lightmate / Bajaj / PRO-LITE			
870	a	5 W	1	No	4500.00
871	b	10 W	1	No	6700.00
872	c	15 W	1	No	9200.00
873	d	20 W	1	No	11400.00
874	e	25 W	1	No	13100.00
875	f	30 W	1	No	14000.00
		SECTION - 4			
	4.1	U.G. CABLES			
	ELEC-4.1.1	Supply of ----- XLPE insulated, 1100V grade armoured alluminium cable with ISI mark as per specification confirming to IS:7098 (Part - I) Makes : Torrent / Unicab / Universal / Polycab / Havells / Gloster / KEI / Finolex / Payal / RR kable / Beljin / Ollvin / Finecab / RPG / V - Guard / Orbit / Fortune Arrt / Gemscab / Bonton / SPM / Unistar / Windsor/ Avocab / Pawancab / Nakoda / Suncab			
876	a	4 Sqmm 2 Core	1	Mtr	153.00
877	b	6 Sqmm 2 Core	1	Mtr	178.00
878	c	10 Sqmm 2 Core	1	Mtr	216.00
879	d	6 Sqmm 4 Core	1	Mtr	216.00
880	e	10 Sqmm 4 Core	1	Mtr	241.00
881	f	16 Sqmm 4 Core	1	Mtr	268.00
882	g	25 Sqmm 3.5 Core	1	Mtr	340.00
883	h	35 Sqmm 3.5 Core	1	Mtr	408.00
884	i	50 Sqmm 3.5 Core	1	Mtr	539.00
885	j	70 Sqmm 3.5 Core	1	Mtr	695.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
886	k	95 Sqmm 3.5 Core	1	Mtr	903.00
887	l	120 Sqmm 3.5 Core	1	Mtr	1110.00
888	m	150 Sqmm 3.5 Core	1	Mtr	1258.00
889	n	185 Sqmm 3.5 Core	1	Mtr	1544.00
890	o	240 Sqmm 3.5 Core	1	Mtr	1959.00
891	p	300 Sqmm 3.5 Core	1	Mtr	2393.00
892	q	400 Sqmm 3.5 Core	1	Mtr	3003.00
	4.2	11 KV H.T. XLPE CABLES			
	ELEC-4.2.1	Supply of ----- HT XLPE (E) insulated 11000 V grade armoured Cable, as per IS specification confirming to IS 7098/II/85 with latest amendments. Makes : Torrent / Unicab / Universal / Polycab / Havells / KEI / RPG / Gloster.			
893	a	35 Sqmm 3 Core	1	Mtr	938.00
894	b	50 Sqmm 3 Core	1	Mtr	1066.00
895	c	70 Sqmm 3 Core	1	Mtr	1270.00
896	d	95 Sqmm 3 Core	1	Mtr	1510.00
897	e	120 Sqmm 3 Core	1	Mtr	1715.00
898	f	150 Sqmm 3 Core	1	Mtr	1944.00
899	g	185 Sqmm 3 Core	1	Mtr	2304.00
900	h	240 Sqmm 3 Core	1	Mtr	2839.00
901	i	300 Sqmm 3 Core	1	Mtr	3199.00
	ELEC-4.2.2	Supply of ----- HT XLPE (E) insulated 33000 V grade armoured Cable, as per IS specification confirming to IS 7098/II/85 with latest amendments. Makes : Torrent / Unicab / Universal / Polycab / Havells / KEI / Gloster			
902	a	95 Sqmm 3 Core	1	Mtr	2374.00
903	b	120 Sqmm 3 Core	1	Mtr	2638.00
904	c	150 Sqmm 3 Core	1	Mtr	2886.00
905	d	185 Sqmm 3 Core	1	Mtr	3166.00
906	e	240 Sqmm 3 Core	1	Mtr	3627.00
907	f	300 Sqmm 3 Core	1	Mtr	4087.00
908	g	400 Sqmm 3 Core	1	Mtr	4732.00
	4.3	CABLE GLANDS			
		SINGLE COMPRESSION HEAVY DUTY GLANDS FOR ARMOURED CABLES			
	ELEC-4.3.1	Supply of heavy duty type single compression brass cable glands duly nickel plated complete with brass checknut, outer sheath sealing rubber ring and washers suitable for ----- XLPE insulated armoured cable etc complete. Makes: SMI / Commet / Dowels.			
909	a	Up to 16.0 Sq.mm 2 Core	1	No	113.00
910	b	Up to 16.0 Sq.mm 4 Core	1	No	145.00
911	c	25 Sqmm to 50.0 Sq.mm 3.5 Core	1	No	209.00
912	d	70 Sqmm to 95.0 Sq.mm 3.5 core	1	No	321.00
913	e	120 Sqmm to 150.0 Sq.mm 3.5 core	1	No	540.00
914	f	185 Sq.mm 3.5 core	1	No	668.00
915	g	240 Sq.mm 3.5 core	1	No	772.00
916	h	300 Sq.mm 3.5 core	1	No	965.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
917	i	400 Sq.mm 3.5 core	1	No	1126.00
		DOUBLE COMPRESSION HEAVY DUTY GLANDS FOR ARMOURED CABLES			
	ELEC-4.3.2	Supply of heavy duty type double compression weather proof type brass cable glands duly nickel plated as per BS 6121 and IP66 complete with brass checknut, outer sheath sealing gasket suitable for ----- XLPE insulated armoured cable etc complete. Makes: SMI / Commet / Dowels.			
918	a	Up to 16.0 Sq.mm 2 Core	1	No	242.00
919	b	10 Sq.mm 4 Core	1	No	242.00
920	c	16 to 25 Sq.mm 4 Core	1	No	321.00
921	d	35 Sq mm 3.5 Core	1	No	396.00
922	e	50 Sq mm 3.5 Core	1	No	507.00
923	f	70 to 95 Sq.mm 4 Core	1	No	765.00
924	g	120 to 150 Sq.mm 4 Core	1	No	1062.00
925	h	185 Sq mm 3.5 Core	1	No	1302.00
926	i	240 Sq mm 3.5 Core	1	No	1721.00
927	j	300 Sq mm 3.5 Core	1	No	1993.00
928	k	400 Sq mm 3.5 Core	1	No	2283.00
		SHROUDS FOR DOUBLE COMPRESSION GLANDS			
	ELEC-4.3.3	Supply and erecting of PVC shrouds for double compression brass cable glands suitable for ----- XLPE insulated armoured cable etc complete.			
929	a	Up to 16.0 Sq.mm 2 Core	1	No	11.00
930	b	10 Sq.mm 4 Core	1	No	17.00
931	c	16 to 25 Sq.mm 4 Core	1	No	17.00
932	d	35 Sq mm 3.5 Core	1	No	26.00
933	e	50 Sq mm 3.5 Core	1	No	30.00
934	f	70 to 95 Sq.mm 4 Core	1	No	42.00
935	g	120 to 150 Sq.mm 4 Core	1	No	42.00
936	h	185 Sq mm 3.5 Core	1	No	64.00
937	i	240 Sq mm 3.5 Core	1	No	64.00
938	j	300 Sq mm 3.5 Core	1	No	93.00
939	k	400 Sq mm 3.5 Core	1	No	93.00
		EARTH TAGS FOR GLANDS			
	ELEC-4.3.4	Supply and erecting of brass earth tag for cable glands suitable for --- etc complete.			
940	a	up to 10.0 Sq.mm	1	No	17.00
941	b	16 to 35.0 Sq.mm	1	No	17.00
942	c	50.0 Sq.mm	1	No	24.00
943	d	70 to 95.0 Sq.mm	1	No	27.00
944	e	120 to 185.0 Sq.mm	1	No	38.00
945	f	240 to 300.0 Sq.mm	1	No	62.00
946	g	400.0 Sq.mm	1	No	85.00
	4.4	LUGS			
		COPPER LUGS			
	ELEC-4.4.1	Supply of heavy duty long barrel copper lugs confirming to I.S specifications suitable for ----- cable etc complete with nuts, bolts and washers.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Makes: DMI / Jainson / Dowels or equivalent make as approved by the department			
947	a	Up to 16 Sq.mm	1	No	30.00
948	b	25 Sq.mm	1	No	41.00
949	c	35 Sq.mm	1	No	50.00
950	d	50 Sq.mm	1	No	70.00
951	e	70 Sq.mm	1	No	123.00
952	f	95 Sq.mm	1	No	151.00
953	g	120 Sq.mm	1	No	204.00
954	h	150 Sq.mm	1	No	240.00
955	i	185 Sq.mm	1	No	345.00
956	j	240 Sq.mm	1	No	499.00
957	k	300 Sq.mm	1	No	660.00
958	l	400 Sq.mm	1	No	967.00
		ALLUMINIUM LUGS			
	ELEC-4.4.2	Supply of heavy duty long barrel alluminium lugs confirming to I.S specifications suitable for ----- cable etc complete with nuts, bolts and washers. Makes: DMI / Jainson / Dowels or equivalent make as approved by the department			
959	a	Upto 16 Sq.mm	1	No	18.00
960	b	25 Sq.mm	1	No	22.00
961	c	35 Sq.mm	1	No	25.00
962	d	50 Sq.mm	1	No	27.00
963	e	70 Sq.mm	1	No	35.00
964	f	95 Sq.mm	1	No	37.00
965	g	120 Sq.mm	1	No	51.00
966	h	150 Sq.mm	1	No	65.00
967	i	185 Sq.mm	1	No	85.00
968	j	240 Sq.mm	1	No	122.00
969	k	300 Sq.mm	1	No	162.00
970	l	400 Sq.mm	1	No	264.00
	4.5	HEAT SHRINKABLE LT CABLE JOINTS			
	ELEC-4.5.1	Supply and erecting of heat shrinkable straight through joint Indoor / Out door for L.T. XLPE Armoured 1100V grade cable complete with necessary accessories and suitable clamps including cost and conveyance of materials complete for ----- with outer tubing seamless type etc complete for finished item of work. Makes : Raychem / Transeal / M Seal			
971	a	10 to 16 Sqmm 4 Core	1	No	2139.00
972	b	25 to 50 Sqmm 3.5 Core	1	No	2535.00
973	c	70 to 185 Sqmm 3.5 Core	1	No	3661.00
974	d	240 to 300 Sqmm 3.5 Core	1	No	6560.00
975	e	400 Sqmm 3.5 Core	1	No	8933.00
	4.6	11 KV 3 CORE HT CABLE STRAIGHT THROUGH JOINTS			
	ELEC-4.6.1	Providing and erecting heat shrinkable			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		straight through joint for out door / indoor for H.T, XLPE Insulated armoured cable 11000V grade complete with necessary accessories and suitable clamps for ----- cable including cost and conveyance of materials and all labour charges etc., complete with outer tubing tubular type. Makes : Raychem / Transeal / M Seal			
976	a	16 to 35Sqmm	1	No	21967.00
977	b	50 to 95Sqmm	1	No	26360.00
978	c	120 to 185Sqmm	1	No	33682.00
	4.7	HT END TERMINATION KITS			
	ELEC-4.7.1	Providing and erecting heat shrinkable indoor termination kit for 11 KV HT XLPE insulated armoured cable ----- with necessary materials etc., complete. Makes : Raychem / Transeal / M Seal			
979	a	70-95 Sqmm 3 core	1	No	12347.00
980	b	120 Sqmm 3 core	1	No	12522.00
981	c	150-185 Sqmm 3 core	1	No	13430.00
982	d	240-300 Sqmm 3 core	1	No	14352.00
	ELEC-4.7.2	Providing and erecting heat shrinkable outdoor termination kit for 11 KV HT XLPE insulated armoured cable ----- with necessary materials etc., complete. Makes : Raychem / Transeal / M Seal			
983	a	70-95 Sqmm 3 core	1	No	18744.00
984	b	120 Sqmm 3 core	1	No	19038.00
985	c	150-185 Sqmm 3 core	1	No	20795.00
986	d	240-300 Sqmm 3 core	1	No	21381.00
	4.8	CABLE FAULT DETECTION			
987	ELEC-4.8.1	Cable Fault Detection for all types of LT underground cbles from 16 sq mm to 400 sq mm upto 250 Mtrs length of cable	1	Job	8453.00
988	ELEC-4.8.2	Cable Fault Detection for all types of HT underground cbles from 16 sq mm to 400 sq mm upto 250 Mtrs length of cable	1	Job	9660.00
	4.9	DOUBLE WALLED CORRUGATED HDPE PIPE			
	ELEC-4.9.1	Supply and Transportation of double walled corrugated HDPE duct made as per specification BSEN - 500 86/IS 14930 Part-II with all accessories like couplers, bends, end caps, Ts etc., complete. Makes: DURA LINE (Dura Guard) / Bajaj / Gamson / Ultra Plus / CPE			
989	a	Outer dia 50mm and Inner dia 38mm	1	Mtr	105.00
990	b	Outer dia 63mm and Inner dia 51mm	1	Mtr	135.00
991	c	Outer dia 78mm and Inner dia 63mm	1	Mtr	164.00
992	d	Outer dia 90mm and Inner dia 76mm	1	Mtr	175.00
993	e	Outer dia 120mm and Inner dia 103.50mm	1	Mtr	273.00
994	f	Outer dia 160mm and Inner dia 136mm	1	Mtr	405.00
995	g	Outer dia 180mm and Inner dia 152mm	1	Mtr	531.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
996	h	Outer dia 200mm and Inner dia 170mm	1	Mtr	619.00
	4.10	CABLE TRAYS			
		PERFORATED CABLE TRAYS			
	ELEC-4.10.1	Supply, Transportation and Installation of ----- hot dip GI perforated cable tray without cover along with coupler plates, T's, Bends, Reducers, Anchor bolts, nuts, washers and slotted channels / Angle Iron Channels etc complete and the tray should be fitted on the wall / Ceiling etc. complete for finished item of work. (Makes: DEC/MNR/ H FAB or equivalent)			
		Note: Add 30% Extra for Perforated cable tray with cover on below rates.			
997	a	600mm x 75mm x 2mm thick	1	Mtr	1867.00
998	b	600mm x 50mm x 2mm thick	1	Mtr	1386.00
999	c	450mm x 50mm x 2mm thick	1	Mtr	1217.00
1000	d	300mm x 50mm x 2mm thick	1	Mtr	1029.00
1001	e	150mm x 50mm x 2mm thick	1	Mtr	574.00
1002	f	100mm x 25mm x 2mm thick	1	Mtr	336.00
1003	g	75mm x 25mm x 2mm thick	1	Mtr	296.00
1004	h	600mm x 75mm x 1.6mm thick	1	Mtr	1497.00
1005	i	600mm x 50mm x 1.6mm thick	1	Mtr	1106.00
1006	j	450mm x 50mm x 1.6mm thick	1	Mtr	972.00
1007	k	300mm x 50mm x 1.6mm thick	1	Mtr	839.00
1008	l	150mm x 50mm x 1.6mm thick	1	Mtr	454.00
1009	m	100mm x 25mm x 1.6mm thick	1	Mtr	268.00
1010	n	75mm x 25mm x 1.6mm thick	1	Mtr	238.00
		LADDER TYPE CABLE TRAYS			
	ELEC-4.10.2	Supply, Transportation and Installation of ----- GI Ladder type cable tray along with required coupler plates, T's, Bends, Reducers, Anchor bolts, nuts, washers and slotted channels / Angle Iron Channels etc complete and the tray should be fitted on the wall / Ceiling etc. complete for finished item of work. (Makes: DEC/MNR/ H FAB or equivalent)			
1011	a	1000mm x 75mm x 2mm thick	1	Mtr	1482.00
1012	b	750mm x 75mm x 2mm thick	1	Mtr	1336.00
1013	c	600mm x 75mm x 2mm thick	1	Mtr	1174.00
1014	d	300mm x 50mm x 2mm thick	1	Mtr	733.00
1015	e	150mm x 50mm x 2mm thick	1	Mtr	587.00
		SECTION - 5			
	5.1	FANS			
1016	ELEC- 5.1.1	Supply, Transportation of energy efficient fan, 1200 mm sweep, aluminium body, consuming 28 W, BEE 5 star rated, ceiling fan with Brush Less Direct Current(BLDC) motor, class of insulation: B, 3 no's blades, 30 cm long down rod, 2 no's canopies, shackle'kit, safety rope, copper winding, Power Factor greater than 0.90, Service Value (CMMAV) greater	1	No	3084.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		than 8.5, Air delivery minimum 235 CMM, 350 RPM(tolerance as per IS:374-2019), THD less than 10%. with remote or compatible to electronic step type regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C(max), insulation resistance more than 2 mega ohm, suitable for 230V, 50 HZ, single phase AC supply, earthing etc., including all standard accessories etc., complete. Makes : Atomberg (Efficio) / Havells / Orient / Halonix			
1017	ELEC- 5.1.2	Supply, Transportation of energy efficient fan, 1400 mm sweep, aluminium body, consuming 32 W, BEE 5 star rated, ceiling fan with Brush Less Direct Current(BLDC)motor, class of insulation: B, 3 no's blades, 30 cm long down rod, 2 no's canopies, shackle'kit, safety rope, copper winding, Power Factor greater than 0.90, Service Value (CMMAV) greater than 7.85, Air delivery minimum 270 CMM, 275 RPM(tolerance as per IS:374-2019), THD less than 10%. with remote or compatible to electronic step type regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise = 75 degree C(max), insulation resistance more than 2 mega ohm, suitable for 230V, 50 HZ, single phase AC supply, earthing etc., including all standard accessories etc., complete. Makes : Atomberg (Efficio) / Havells / Orient	1	No	3230.00
1018	ELEC- 5.1.3	Supply, Transportation of energy efficient decorative fan, 1200 mm sweep, aluminium body, consuming 28 W, BEE 5 star rated, ceiling fan with Brush Less Direct Current(BLDC)motor, class of insulation: B, 3 no's blades, 30 cm long down rod, 2 no's canopies, shackle kit, safety rope, copper winding, Power Factor greater than 0.90, Service Value (CMM/W) greater than 8.5, Air delivery minimum 235 CMM, 350 RPM (tolerance as per IS:374-2019), THD less than 10%, remote or compatible to electronic step type regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise = 75 degree C (max), insulation resistance more than 2 mega ohm, suitable for 230V, 50 HZ, single phase AC supply, earthing	1	No	3274.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		etc., complete. Makes : Atomberg (Efficio +) / Havells / Orient / RR / Halonix			
1019	ELEC- 5.1.4	Supply, Transportation of energy efficient decorative fan, 1400 mm sweep, aluminium body, consuming 35 W, BEE 5 star rated, ceiling fan with Brush Less Direct Current(BLDC) motor, class of insulation: B, 3 no's blades, 30 cm long down rod, 2 no's canopies, shackle kit, safety rope, copper winding, Power Factor greater than 0.90, Service Value (CMM/W) greater than 7.8, Air delivery minimum 270 CMM, 275 RPM (tolerance as per IS:374-2019), THD less than 10%, remote or compatible to electronic step type regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise = 75 degree C (max), insulation resistance more than 2 mega ohm, suitable for 230V, 50 HZ, single phase AC supply, earthing etc., complete. Makes : Atomberg (Efficio +) / Havells / Orient / RR / Halonix	1	No	3602.00
1020	ELEC-5.1.5	Supply of 48" (1200mm) Sweep decorative Ceiling Fan 1 Star Rated with all accessories etc., complete. Makes : Crompton / Havells / Orient	1	No	2000.00
1020	ELEC-5.1.5	Supply of 12" (300mm) Cabin fan. Makes : Crompton / Havells / Orient / AP12 / Panasonic / Halonix / RR.	1	No	2069.00
1021	ELEC-5.1.6	Supply of 16" (400 mm) BLDC 32 W Pedestal Fan with service value 2.7 CMM / Watt and with remote controller and with all accessories etc., Makes : Atomberg / Crompton / Orient / Havells / Halonix .	1	No	3230.00
1022	ELEC-5.1.7	Supply of 16" (400mm) BLDC 30 W Wall mounted Fan with service value 2.7 CMM / Watt with all accessories etc., Makes : Atomberg / Crompton / Orient / Havells / Halonix .	1	No	3001.00
	ELEC-5.1.8	Supply of -----Wall mounting / Pedestal Air Circulators Makes : Crompton / Havells Turbo Force / Orient / Almonard / Panasonic / Halonix / RR.			
1023	a	18" (450mm)	1	No	6523.00
1024	b	24" (600mm)	1	No	7966.00
	ELEC-5.1.9	Supply of ----- Light duty exhaust fan with metal blades etc complete Makes : Crompton / Havells Ventilair-DB / Orient hill air.			
1025	a	9" (225mm)	1	No	1553.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1026	b	12" (300mm)	1	No	1728.00
	ELEC-5.1.10	Supply of ----- Ventilating exhaust fan with shutters etc complete Makes : Crompton / Havells Ventilair / Orient / Panasonic / Halonix / RR.			
1027	a	6" (150mm)	1	No	1564.00
1028	b	8" (200mm)	1	No	1805.00
	ELEC-5.1.11	Supply of -----, 900 RPM Heavy duty exhaust fan with metallic blades. Makes : Crompton / Almonard / Havells Turbo Force SP.			
1029	a	12" (300mm)	1	No	3406.00
1030	b	15" (375mm)	1	No	4019.00
1031	c	18" (450mm)	1	No	5246.00
	ELEC-5.1.12	Supply and fixing of GI louver shutter including GI mesh to avoid birds entry with necessary materials suitable for ----- -----Exhaust fan.			
1032	a	9"	1	No	168.00
1033	b	12"	1	No	181.00
1034	c	15" / 16"	1	No	198.00
1035	d	18"	1	No	216.00
	ELEC-5.1.13	Providing recessing -----thickness brick wall suitable for erection of exhaust fan up to 450mm sweep completed with grouting, nuts, bolts, plastering and colour wash to match the the colour of wall .			
1036	a	9"	1	No	278.00
1037	b	12"	1	No	482.00
1038	c	15" / 18"	1	No	601.00
1039	ELEC-5.1.14	Supply of 8" (200 mm) 20 W / 1500 RPM BLDC exhaust fan with necessary accessories etc., complete Makes : Atomberg / Crompton / Havells / Orient.	1	No	1702.00
	5.2	WATER HEATERS			
	ELEC-5.2.1	Supply, Transportation, Installation, Testing and commissioning of storage / Pressure type Vertical / Horizontal 230/250V single phase 2000 watts 5 Star rated water heater with ABS plastic body of ----- capacity to withstand up to 8.0 bar of water pressure including all standard accessories and dead weight pressure reducing valve on out let side, including cost of 2 Nos SS flexible braided hose pipe, testing and all labour charges etc., complete. Makes : Crompton / Jaquar / Venus / Racold / AO Smith / Havells / Bajaj or equivalent as approved by the Dept.			
1040	a	10 Ltrs	1	No	9800.00
1041	b	15 Ltrs	1	No	10882.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1042	c	25 Ltrs	1	No	12734.00
	5.3	ACCESSORIES FOR WATER HEATERS			
1043	ELEC-5.3.1	Supply and Installation of Heating element of 1.5 / 2.0 / 3.0 KW.	1	No	494.00
1044	ELEC-5.3.2	Supply, Installation, Testing and Commissioning of thermostat with range 300 to 900C adjustable and suitable for 25 to 50 Ltrs capacity.	1	No	334.00
1045	ELEC-5.3.3	Supply , Installation, Testing and Commissioning of pressure release valve for water heater of 15 to 50 Ltrs.capacity.	1	No	334.00
1046	ELEC-5.3.4	Supply, , Installation, Testing and Commissioning of Metallic / SS Flexible braided hose pipe	1	No	222.00
		NOTE : If it is only supply the material (without installation) reduce the prices by 5%			
	5.4	STARTERS FOR MOTORS			
	ELEC-5.4.1	Supply & Fixing of D.O.L Starter 250V, Single phase, 50Hz. With SS enclouser comprising of contactor with bi-metalic relay with necessary push buttons, etc., complete suitable ----- Makes: Siemens / Crompton / L&T / BCH /ABB			
1047	a	Up to 3.0 HP.	1	No	1040.00
1048	b	Upto 7.5.HP.	1	No	2426.00
1049	c	Upto 10.0.HP.	1	No	4043.00
	ELEC-5.4.2	Supply & Fixing of Star Delta Starter 415V, Three phase, 50Hz. With SS enclouser comprising of contactor with bi-metalic relay with necessary push buttons, etc., complete suitable from ---- ----- Makes: Siemens / Crompton / L&T / BCH.			
1050	a	12.5 HP to 15.0 HP.	1	No	7854.00
1051	b	Above 15.0 HP up to 25.0 HP.	1	No	14380.00
1052	c	Above 25.0 HP up to 35.0 HP.	1	No	29786.00
1053	ELEC-5.4.3	Supply and erecting water level controller 230 / 415V AC, 2 way per under ground tank operation only.	1	No	1986.00
1054	ELEC-5.4.4	Supply and erecting water level controller 230 / 415V AC, 2 way per over head tank operation only.	1	No	2291.00
1055	ELEC-5.4.5	Supply and erecting Float sensor switch for water level controller working on 250V and rated current 8 A, with 2Mtr High quality wire.	1	No	763.00
1056	ELEC-5.4.6	Supply and erecting directly operated single phasing preventer complete erected and connected to power supply to operate in case of single phasing.	1	No	1222.00
1057	ELEC-5.4.7	Supply and erecting pump protection	1	No	3819.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		relay comprising current sensing phase failure and UV+OV relay with dry run and over load protection suitable for 3 phase pumps.			
	5.5	SINGLE PHASE SUBMERSIBLE MOTOR PUMP SETS			
	ELEC-5.5.1	Supply and Transportation of ----- ----- single phase ISI submersible motor pumpset suitable for 4" Bore well. Makes: Texmo / CRI / KSB / Aryan Varsha / Lubi / Falcon			
1058	a	0.75HP 8 Stage	1	No	18787.00
1059	b	1.00HP 10 Stage	1	No	21433.00
1060	c	1.00HP 15 Stage	1	No	22094.00
1061	d	1.50HP 21 Stage	1	No	26725.00
1062	e	2.00HP 25 Stage	1	No	32414.00
	ELEC-5.5.2	Supply and Transportation of ----- ----- single phase ISI submersible motor pumpset suitable for 4" Bore well. Makes: Flowell / Waterman / Ellen / Kirlosker / Samudra			
1063	a	0.75 HP 8 Stage	1	No	17861.00
1064	b	1.00 HP 10 Stage	1	No	20374.00
1065	c	1.00 HP 15 Stage	1	No	21036.00
1066	d	1.50 HP 21 Stage	1	No	25534.00
1067	e	2.00 HP 25 Stage	1	No	30561.00
	5.6	THREE PHASE SUBMERSIBLE MOTOR PUMP SETS.			
	ELEC-5.6.1	Supply and Transportation of star rated - -----Three phase ISI submersible motor pumpset suitable for 6" Bore well. Makes: Texmo / CRI / KSB / Aryan Varsha / Lubi / Falcon			
1068	a	3.00 HP 5-10 Stage	1	No	33336.00
1069	b	5.00 HP 5-10 Stage	1	No	37504.00
1070	c	5.00 HP 12-16 Stage	1	No	42109.00
1071	d	7.50 HP 5-10 Stage	1	No	41561.00
1072	e	7.50 HP 12-16 Stage	1	No	45947.00
1073	f	7.50 HP 20-25 Stage	1	No	49204.00
1074	g	10.00 HP 12-18 Stage	1	No	48579.00
1075	h	10.00 HP 20-30 Stage	1	No	60972.00
1076	i	10.00 HP 35-40 Stage	1	No	69227.00
1077	j	12.50 HP 12-20 Stage	1	No	58975.00
1078	k	12.50 HP 24-40 Stage	1	No	71888.00
1079	l	15.00 HP 10-20 Stage	1	No	77214.00
1080	m	15.00 HP 24-40 Stage	1	No	79877.00
	ELEC-5.6.2	Supply and Transportation of star rated - -----Three phase ISI submersible motor pumpset suitable for 6" Bore well. Makes: Flowell / Waterman / Ellen / Kirlosker / Samudra			
1081	a	3.00 HP 5-10 Stage	1	No	31316.00
1082	b	5.00 HP 5-10 Stage	1	No	34758.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1083	c	5.00 HP 12-16 Stage	1	No	39691.00
1084	d	7.50 HP 5-10 Stage	1	No	39117.00
1085	e	7.50 HP 12-16 Stage	1	No	43246.00
1086	f	7.50 HP 20-25 Stage	1	No	46683.00
1087	g	10.00 HP 12-16 Stage	1	No	45885.00
1088	h	10.00 HP 20-30 Stage	1	No	47262.00
1089	i	10.00 HP 35-40 Stage	1	No	56511.00
1090	j	12.50 HP 12-20 Stage	1	No	53130.00
1091	k	12.50 HP 24-40Stage	1	No	58564.00
1092	l	15.00 HP 10-20 Stage	1	No	64046.00
1093	m	15.00 HP 24-40 Stage	1	No	65205.00
	5.7	SINGLE PHASE OPEN WELL SUBMERSIBLE MOTOR PUMP SETS.			
	ELEC-5.7.1	Supply, Transportation and Installation of-----Single phase open well ISI submersible motor pumpset. Makes: Texmo / CRI / KSB / Aryan Varsha / Lubi / Falcon			
1094	a	1.00 HP	1	No	14200.00
1095	b	1.50 HP	1	No	16102.00
	ELEC-5.7.2	Supply, Transportation and Installation of-----Single phase open well ISI submersible motor pumpset. Makes: Flowell / Waterman / Ellen / Samudra			
1096	a	1.00 HP	1	No	13440.00
1097	b	1.50 HP	1	No	15342.00
	5.8	THREE PHASE OPEN WELL SUBMERSIBLE PUMP SETS.			
	ELEC-5.8.1	Supply, Transportation and Installation of ----- Three phase open well ISI submersible motor pumpset----- Makes: Texmo / CRI / KSB / Aryan Varsha / Lubi / Falcon			
1098	a	3.00 HP	1	No	29799.00
1099	b	5.00 HP	1	No	34442.00
1100	c	7.50 HP	1	No	40910.00
1101	d	10.00 HP	1	No	43035.00
	ELEC-5.8.2	Supply, Transportation and Installation of ----- Three phase open well ISI submersible motor pumpset----- Makes: Varuna / Flowell / Waterman / Techno / Mahavir / unitek / Fitwell / Ellen / Karvel / LPS / Duke / Varsha / Ajantha / Samudra			
1102	a	3.00 HP	1	No	28130.00
1103	b	5.00 HP	1	No	32498.00
1104	c	7.50 HP	1	No	38580.00
1105	d	10.00 HP	1	No	40501.00
	5.9	SINGLE PHASE MONO BLOCK MOTOR PUMP SETS.			
1106	ELEC-5.9.1	Supply and Transportation of 0.5HP Single phase, 2880 RPM 50 Hz ISI Mono block CI body motor pumpset Makes: Texmo / CRI / KSB / Aryan Varsha	1	No	7306.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		/ Lubi / Falcon			
1107	ELEC-5.9.2	Supply and Transportation of 0.5HP Single phase, 2880 RPM 50 Hz ISI Mono block CI body motor pumpset Makes: Flowell / Waterman / Ellen / Samudra	1	No	7013.00
	ELEC-5.9.3	Supply and Transportation of----- --Single phase ISI Mono block CI body motor pumpset----- Makes: Texmo / CRI / KSB / Aryan Varsha / Lubi / Falcon			
1108	a	1.00 HP (25x25mm).	1	No	12519.00
1109	b	1.50 HP (32x25mm).	1	No	16693.00
	ELEC-5.9.4	Supply and Transportation of----- --Single phase ISI Mono block CI body motor pumpset. Makes: Varuna / Flowell / Waterman / Ellen / LPS Varsha / Samudra			
1110	a	1.00 HP (25x25mm).	1	No	10081.00
1111	b	1.50 HP (32x25mm).	1	No	13442.00
	ELEC-5.9.5	Supply and Transportation of ----- ----- self priming Mono block IP44 motor pumpset----- Makes: Texmo / CRI / KSB / Aryan Varsha / Lubi / Falcon			
1111	a	0.5 HP Single phase	1	No	4988.00
1112	b	1.00 HP Single phase	1	No	6200.00
1112	c	1.50 HP Single phase	1	No	9345.00
	ELEC-5.9.6	Supply and Transportation of ----- ----- Mono block IP44 motor pumpset----- Makes: Texmo / CRI / KSB / Aryan Varsha / Lubi / Falcon			
1113	a	2.00 HP Three phase	1	No	19845.00
1114	b	3.00 HP Three phase.	1	No	30492.00
1115	c	5.00 HP Three phase	1	No	34043.00
1116	d	7.50 HP Three phase	1	No	42735.00
1117	e	10.0 HP Three phase	1	No	53970.00
	ELEC-5.9.7	Supply and Transportation of ----- -----self priming Mono block IP44 motor pumpset----- Makes: Flowell / Waterman/ Ellen / Samudra			
1118	a	0.5 HP Single phase	1	No	4725.00
1119	b	1.00 HP Single phase	1	No	4872.00
1120	c	1.50 HP Single phase	1	No	8400.00
	ELEC-5.9.8	Supply and Transportation of ----- ----- Mono block IP44 motor pumpset----- Makes: Flowell / Waterman/ Ellen / Samudra			
1121	a	2.00 HP Three phase	1	No	15593.00
1122	b	3.00 HP Three phase	1	No	23058.00
1123	c	5.00 HP Three phase	1	No	26807.00
1124	d	7.50 HP Three phase	1	No	31500.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1125	e	10.0 HP Three phase	1	No	44100.00
	5.10	CONTROL PANEL BOARD FOR MOTORS			
1126	ELEC-5.10.1	Supply and Transportation of control panel for single phase submersible motors up to 3 HP @ 220V 50Hz operating range between 80 to 240V including supply and fixing of Direct - on - Line LTLK / SIEMENS / CROMPTON make Volt meter and Ammeter with starting and running capacitors assembled with ISI mark contactors and fitted with Legrand make ISI mark MCB etc., complete.	1	No	8121.00
1127	ELEC-5.10.2	Supply and Transportation of control panel for three phase submersible motors up to 5 HP @ 415V 50Hz operating fitted with supply and fixing of Direct - on - Line LTLK /BCH/ SIEMENS / CROMPTON make, 0-500V Volt meter and 0-30A Ammeter, Indication lamps, selector switches, CTS, 32A TP MCB, Single phase preventor,suitable contactor to with stand low voltage pick up and high voltage resistant, with ISI marked capacitors assembled with ISI mark contactors and fitted with Legrand make ISI mark MCB etc., complete.	1	No	12634.00
1128	ELEC-5.10.3	Supply and Transportation of control panel for three phase submersible motors above 5 HP up to 7.5 HP @ 415V 50Hz operating fitted with supply and fixing of Direct - on - Line LTLK /BCH/ SIEMENS / CROMPTON make, 0-500V Volt meter and 0-30A Ammeter, Indication lamps, selector switches, CTS, 32A TP MCB, Single phase preventor,suitable contactor to with stand low voltage pick up and high voltage resistant, with ISI marked capacitors assembled with ISI mark contactors and fitted with Legrand make ISI mark MCB etc., complete.	1	No	15160.00
1129	ELEC-5.10.4	Supply and Transportation of control panel for three phase submersible motors above 7.5 HP to 12.5 HP @ 415V 50Hz operating fitted with supply and fixing of Direct - on - Line LTLK /BCH/ SIEMENS / CROMPTON make, 0-500V Volt meter and 0-30A Ammeter, Indication lamps, selector switches, CTS, 32A TP MCB, Single phase preventor,suitable contactor to with stand low voltage pick up and high voltage resistant, with ISI marked capacitors assembled with ISI mark contactors and fitted with Legrand make ISI mark MCB etc., complete.	1	No	17325.00
		Note: If it is Out door panel add 10% extra on above.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	5.11	UPVC PIPES AND FITTINGS			
	ELEC-5.11.1	Supply and delivery of UPVC Raising Column Pipes for submersible motors with both ends square threaded, with rubber 'O' rings with smooth inner surface which can take the minimum load of 2100 to 4000 Kgs weights. Makes : Ashirvad / Finolex / Waterflo / Apollo / Falcon / Hindware			
1130	a	Nominal diameter of Standard 42 / 32mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1	Mtr	193.00
1131	b	Nominal diameter of Standard 48 / 40mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1	Mtr	227.00
1132	c	Nominal diameter of Standard 60 / 50 mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1	Mtr	335.00
1133	d	Nominal diameter of Standard 75 / 65 mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1	Mtr	448.00
1134	e	Nominal diameter of Standard 88 / 80 mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1	Mtr	633.00
	ELEC-5.11.2	SUITABLE HEAVY DUTY COUPLINGS FOR STANDARD PIPES			
1135	a	Nominal diameter of heavy duty couplings 42/32 mm UPVC pipe (27 Kgs / CM 2) capable of with standing up to 27 Kgs / CM2 above 200 mts and upto 300 mts	1	No	60.00
1136	b	Nominal diameter of heavy duty couplings 48/40 mm UPVC pipe (27 Kgs / CM 2) capable of with standing up to 27 Kgs / CM2 above 200 mts and upto 300 mts	1	No	92.00
1137	c	Nominal diameter of heavy duty couplings 60/50 mm UPVC pipe (27 Kgs / CM 2) capable of with standing up to 27 Kgs / CM2 above 200 mts and upto 300 mts	1	No	99.00
1138	d	Nominal diameter of heavy duty couplings 75/65 mm UPVC pipe (27 Kgs / CM 2) capable of with standing up to 27 Kgs / CM2 above 200 mts and upto 300 mts	1	No	112.00
1139	e	Nominal diameter of heavy duty couplings 88/80 mm UPVC pipe (27 Kgs / CM 2) capable of with standing up to 27 Kgs / CM2 above 200 mts and upto 300 mts	1	No	135.00
	ELEC-5.11.3	Supply and Delivery of CI Adopter Assembly Makes : Ashirvad / Finolex / Waterflo / Apollo.			
1140	a	1 1/2"	1	No	979.00
1141	b	2"	1	No	1283.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1142	c	2 1/2"	1	No	1655.00
	ELEC-5.11.4	Supply and Delivery of pump guard assembly with 2Nos SS Powder coated flange and 2Nos SS Rods with nut and colter pin. Makes : Ashirvad / Finolex / Waterflo / Apollo.			
1143	a	1 1/2"	1	No	608.00
1144	b	2"	1	No	675.00
1145	c	2 1/2"	1	No	913.00
1146	d	3"	1	No	1352.00
	5.12	REPAIRS TO MOTORS			
1147	ELEC-5.12.1	Rewinding of motor of table fan / wall bracket fan / Cabin Fan including minor repairs, lubrication of ball bearings, bush bearings and replacing condencer, screws etc testing of fan for original speed.	1	No	630.00
1148	ELEC-5.12.2	Rewinding of motor of 900mm ceiling Fan including minor repairs, lubrication of ball bearings, bush bearings and replacing condencer, screws etc testing of fan for original speed.	1	No	657.00
1149	ELEC-5.12.3	Rewinding of motor of 1200mm / 1400mm ceiling Fan including minor repairs, lubrication of ball bearings, bush bearings and replacing condencer, screws etc testing of fan for original speed.	1	No	671.00
1150	ELEC-5.12.4	Rewinding of motor of 900 / 1400 RPM 300mm Exhaust Fan including minor repairs, lubrication of ball bearings, bush bearings and replacing condencer, screws etc testing of fan for original speed.	1	No	671.00
1151	ELEC-5.12.5	Rewinding of motor of 900 / 1400 RPM 375mm Exhaust Fan including minor repairs, lubrication of ball bearings, bush bearings and replacing condencer, screws etc testing of fan for original speed.	1	No	797.00
1152	ELEC-5.12.6	Rewinding of motor of 900 / 1400 RPM 450mm Exhaust Fan including minor repairs, lubrication of ball bearings, bush bearings and replacing condencer, screws etc testing of fan for original speed.	1	No	1118.00
	ELEC-5.12.7	Rewinding of Electric motor up to and including.....HP, 3 Phase up to 1400 RPM of all types and makes with copper wire including minor repairs, lubrication of ball bearings, bush bearings and replacing condencer, screws etc testing of motor for original speed.			
1153	a	Up to 1.00 HP	1	No	2059.00
1154	b	Above 1.00 HP up to 2.00 HP	1	No	2307.00
1155	c	Above 2.00 HP up to 3.00 HP	1	No	2768.00
1156	d	Above 3.00 HP up to 5.00 HP	1	No	4612.00
1157	e	Above 5.00 HP up to 7.50 HP	1	No	5535.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1158	f	Above 7.50 HP up to 10.00 HP	1	No	6610.00
1159	g	12.50 HP up to 15.00 HP	1	No	7687.00
	ELEC-5.12.8	Rewinding of Submersible pums motor up to and including.....HP, 3 Phase up to 1400 RPM of all types and makes with copper wire including minor repairs, lubrication of ball bearings, bush bearings and replacing condencer, screws etc testing of motor for original speed.			
1160	a	Up to 5.00 HP	1	HP	1906.00
1161	b	Above 5.00 HP up to 25.00 HP	1	HP	2613.00
		Note: If it is in open well submersible rate shall be decreased by 40%			
	ELEC-5.12.9	Bearing of approved make for electric motor single phase / 3 phase AC ----- of all types.			
1162	a	Upto 1 HP	1	No	242.00
1163	b	Upto 2 to 3 HP	1	No	312.00
1164	c	Upto 5 to 7.5 HP	1	No	406.00
1165	d	Upto 10 to 12.5 HP	1	No	426.00
1166	e	Upto 15 to 20 HP	1	No	648.00
	ELEC-5.12.10	Supply of -----for table / cabin / pedestal / ceiling / exhaust fan complete with alignment of shaft and tested.			
1167	a	Bearing	1	No	185.00
1168	b	Bush / rubber / ring washers	1	No	99.00
1169	c	Capacitor	1	No	58.00
1170	ELEC-5.12.11	EICHER model 11:10 with 100 H.P. direct injestion 4 stroke engine with one spare wheel 3800 mm cabin high deck with jangla (full body) (4 wheeler) for generator	1	No	600000.00
	5.13	ACCESSORIES OF MOTORS			
	ELEC-5.13.1	Supply, Transportation and fixing of suitable pump guard set (2Nos SS), Flanges set (2 Nos) to protect and safe guard the pump and Motor from vibrations while starting and switching of the pumpset.			
1171	a	OD 42mm	1	No	439.00
1172	b	OD 48mm	1	No	520.00
1173	c	OD 60mm	1	No	746.00
1174	d	OD 75mm	1	No	896.00
1175	e	OD 80mm	1	No	1155.00
	ELEC-5.13.2	Supply, Transportation and fixing of seamless cast iron adopter assembly (Two Nos at bottom of the pipe to coupling to the pump set and the other at top end of the pipes) for installing the pump set with pipes including cost and conveyance of all materials, taxes etc., complete.			
1176	a	OD 42mm	1	No	642.00
1177	b	OD 48mm	1	No	746.00
1178	c	OD 60mm	1	No	977.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1179	d	OD 75mm	1	No	1259.00
1180	e	OD 80mm	1	No	1502.00
	ELEC-5.13.3	Supply, Transportation and fixing of ----- -----90 degree bend with length of 20cm (Center to face) galvanised GI bends heavy duty with threaded at both ends for installing the pump set including cost and conveyance of all materials, taxes etc., complete.			
1181	a	50mm dia	1	No	260.00
1182	b	65mm dia	1	No	350.00
1183	c	80mm dia	1	No	441.00
	ELEC-5.13.4	Supply, Transportation and fixing of following MS threaded Flanges 2 Nos with nuts and bolts including cost and conveyance of all materials, taxes etc., complete.			
1184	a	50mm dia MS flanges set (2 Nos) 150mm dia OD, 12mm thick each flange with required dia bolts and nuts.	1	No	335.00
1185	b	65mm dia MS flanges set (2 Nos) 165mm dia OD, 12mm thick each flange with required dia bolts and nuts.	1	No	475.00
1186	c	80mm dia MS flanges set (2 Nos) 175mm dia OD, 12mm thick each flange with required dia bolts and nuts.	1	No	504.00
	ELEC-5.13.5	Supply and erecting cast iron foot wall ball type / Flat type of size dia with strainer for negetive suction etc complete.			
1187	a	80mm	1	No	5198.00
1188	b	100mm	1	No	7508.00
1189	c	150mm	1	No	18480.00
1190	d	200mm	1	No	31185.00
	ELEC-5.13.6	Supply, Transportation and fixing of ----- ----- 450mm length, 12mm thickness and 75mm wide MS Clamp set with required nuts and bolts.			
1191	a	40mm dia	1	No	393.00
1192	b	50mm dia	1	No	460.00
1193	c	65mm dia	1	No	484.00
1194	d	80mm dia	1	No	644.00
1195	e	150mm dia galvanised bore cover	1	No	247.00
1196	f	150mm dia stainless steel bore cover	1	No	484.00
		SECTION - 6			
		AIR CONDITIONERS			
	6.1	SPLIT Acs			
	ELEC-6.1.1	Supply and Transportation of split AC unit with high wall mounted 100% copper indoor unit and outdoor condensing unit Hermetically sealed compressor suitable for operation on 230V, 50Hz, 1Phase AC supply capable of performing cooling dehumidifying air circulating and filtering with cooling and condensing units with			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		3.0 mts of copper piping, insulation kit and 4 mts of 3 core copper flexible chord (Voltage range 160- 264 volts) and cordless remote control with 5 years warranty compressor and comprehensive maintenance for 2 years			
1197	a	1.5 TR 3 Star capable of delivering 18000 BTU/hr Carrier / Daikin / Blue Star / Hitachi or equivalent	1	No	31499.00
1198	b	2.0 / 1.8 TR 3 Star capable of delivering 21600 BTU/hr and above of makes Daikin / Thoshiba / O General / Carrier / Blue Star / Hitachi or equivalent	1	No	37935.00
	6.2	INVERTER SPLIT AC UNITS (COOLING ONLY)			
	ELEC-6.2.1	Supply and Transportation of of INVERTER Model Cool type split AC unit with high wall mounted Single Split 100% copper indoor and outdoor condensing unit Hermetically sealed compressor suitable for operation on 230V, 50Hz, 1Phase AC supply capable of performing Heat cool dehumidifying air circulating and filtering with cooling and condensing units with 3.0 mts of copper piping, insulation kit and 4 mts of 4 core copper flexible chord (Voltage range 160- 264 volts) and cordless remote control with with warranty of compressor for 5 years iand comprehensive maintenance for 2 years			
1199	a	1.5 TR 3 Star capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Blue Star / Toshibha / Carrier / Hitachi or equivalent	1	No	36118.00
1200	b	1.5 TR 5 Star capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Toshibha / Carrier / Blue Star / Hitachi or equivalent	1	No	41992.00
1201	c	2.0 / 1.8 TR 3 Star capable of delivering 21600 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Toshibha / Carrier / Blue Star / Hitachi or equivalent	1	No	45544.00
1202	d	2.0 / 1.8 TR 5 Star capable of delivering 21600 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Toshibha / Carrier / Blue Star / Hitachi or equivalent	1	No	50867.00
	6.3	INVERTER CASSETTE TYPE AC UNITS			
	ELEC-6.3.1	Supply and Transportation of Inverter Cassette type AC unit with ceiling mounted indoor unit and outdoor condensing unit Hermetically sealed compressor suitable for operation on AC			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		supply capable of performing cooling dehumidifying air circulating and filtering with cooling and condensing units etc complete with Wireless remote controller, but without refrigerent piping and cable.with 2 years warranty and annual maintenance contract.			
1203	a	1.5 TR 3 Star capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshibha or equivalent	1	No	63725.00
1204	b	1.5 TR 5 Star capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshibha or equivalent	1	No	77280.00
1205	c	2.0 TR 3 Star capable of delivering 24000 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshibha or equivalent	1	No	79800.00
1206	d	2.0 TR 5 Star capable of delivering 24000 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshibha or equivalent	1	No	85260.00
1207	e	2.5 TR 3 Star capable of delivering 30000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshibha or equivalent	1	No	103194.00
1208	f	2.5 TR 5 Star capable of delivering 30000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshibha or equivalent	1	No	110400.00
1209	g	3.5 TR 3 Star Three Phase capable of delivering 42000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshibha or equivalent	1	No	110808.00
1210	h	3.5 TR 5 Star Three Phase capable of delivering 42000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshibha or equivalent	1	No	120528.00
1211	i	4.0 TR 3 Star Three Phase capable of delivering 48000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshibha or equivalent	1	No	118800.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1212	j	4.0 TR 5 Star Three Phase capable of delivering 48000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba or equivalent	1	No	125172.00
		NON - INVERTER CASSETTE TYPE AC UNITS			
	ELEC-6.3.2	Supply and Transportation of Non - Inverter Cassette type AC unit with ceiling mounted indoor unit and outdoor condensing unit Hermetically sealed compressor suitable for operation on AC supply capable of performing cooling dehumidifying air circulating and filtering with cooling and condensing units etc complete with Wireless remote controller, but without refrigerent piping and cable with 2 years warranty and annual maintenance contract.			
1213	a	1.5 TR capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba or equivalent	1	No	56000.00
1214	b	1.9/2.0 TR capable of delivering 24000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba or equivalent	1	No	65000.00
1215	c	3.0 TR capable of delivering 30000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba or equivalent	1	No	98000.00
		CHILLED WATER CASSETTE UNITS			
	ELEC-6.3.3	Supply, Transportation, Installation, Testing and Commissioning of ----- ----- Chilled water Cassette unit complete with 3 speed having coil section, blower section, filter section, condensate drain pump, insulated extended drain tray, Supports, Copper piping connections, unions, incoming cable from MCB / Isolator to unit, 12 - 24 V step down Transformer for PIBC valve , Spring Return Actuators etc.,. Extended tray should be accommodated with Ball valves, PIBC motorized valves etc.,			
		Digital thermostat with remote sensing element with Cassette Unit Switch ON / OFF control compatible to the PIBC valve to control the room temperature to be included BMS etc., complete for finished item of work. Makes : Carry Air / Bhutoria or equivalent			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1216	a	1 TR (400CFM) 1Way	1	No	36750.00
1217	b	1 TR (400CFM) 2Way	1	No	38850.00
1218	c	1 TR (400CFM) 4Way	1	No	40950.00
1219	d	1.5 TR (600CFM) 1Way	1	No	45150.00
1220	e	1.5 TR (600CFM) 2Way	1	No	47250.00
1221	f	1.5 TR (600CFM) 4Way	1	No	50400.00
1222	g	2 TR (800CFM) 1Way	1	No	47250.00
1223	i	2 TR (800CFM) 4Way	1	No	53550.00
1224	j	2.5TR (1000CFM) 4Way	1	No	58800.00
1225	k	3.0 TR (1200CFM) 4Way	1	No	60900.00
1226	l	3.75 TR (1500CFM) 4Way	1	No	63000.00
	ELEC-6.3.4	Supply, installation, testing and commissioning of modulating 2 way valve with package assembly with on / off actuator, required control cabling between valve and actuator etc complete for finished item of work.			
1227	a	Valve Package Assembly 2 way 20mm / PIBC valve (DN 20) with Modulating actuator.	1	No	13000.00
1228	b	Valve Package Assembly 2 way 25mm / PIBC valve (DN 25) with Modulating actuator.	1	No	14000.00
	6.4	TOWER MODEL TYPE AC UNITS			
	ELEC-6.4.1	Supply and Transportation of Slim line / Tower Model/Verticool type split AC unit with 100% copper indoor unit and floor mounted outdoor condensing unit Hermetically sealed Scroll compressor suitable for operation on AC supply capable of performing cooling dehumidifying air circulating and filtering with cooling and condensing units etc complete with cordless remote control with 2 years warranty and annual maintenance contract.			
1229	a	2.4 TR Three Phase capable of delivering 39600 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi or equivalent	1	No	90737.00
1230	b	3.0 / 3.3 TR Three Phase capable of delivering 39600 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi or equivalent	1	No	99480.00
1231	c	4.0 / 3.8 TR Three Phase capable of delivering 45600 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi or equivalent	1	No	105197.00
1232	d	4.5 / 4.6 TR Three Phase capable of delivering 55200 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi or equivalent	1	No	110915.00
	6.5	AIR HANDLING UNITS			
	ELEC-6.5.1	Supply, installation, testing and commissioning of factory built chilled			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		water double skin type horizontal/vertical floor/ceiling mounted air handling unit made of minimum 40mm thick panels consisting of pre-plastisized GI casing of thickness not less than 0.8mm outside layer and 0.8mm inside layer with polyurethane (PUF)/ mineral wool insulation between them. All doors and floor of AHU shall be of same thickness as of casing. The AHU shall be complete with blower section with AMCE certified blower suitable for static pressure of required.			
		Cooling coil section with aluminum finned copper tubes (tube thickness not less than 0.5mm), cooling coil of 6 row deep, filter section with 50mm thick metal mesh/washable synthetic type Air Pre Filter with filtration efficiency 90% down to 10 micron particle size, suitable drive package with TEFC drive motor with efficiency Class IE3 or EFF1 which ever is more efficient suitable for 415+/- 10% volts, 50 Hz, 3 Phase AC supply, drine connection, stainless steel (20G drain pan)with insulation, Auto purge valve wherever required necessary vibration isolation arrangement etc., complete as follows. The AHU shall be forward / backward curved centrifugal fan, Belt driven motor / Plug Fan. The AHU coil shall be AHRI/Eurovent certified. TSP 50 mm Makes : System Air / VTS / Carry Air / Edge Tec			
1233	a	1200 CFM (3.0 TR)	1	No	63000.00
1234	b	2000 CFM (5.0 TR)	1	No	105000.00
1235	c	2400 CFM (6.0 TR)	1	No	126000.00
1236	d	2800 CFM (7.0 TR)	1	No	147000.00
1237	e	3200 CFM (8.0 TR)	1	No	168000.00
1238	f	4000 CFM (10.0 TR)	1	No	210000.00
1239	g	4400 CFM (11.0 TR)	1	No	231000.00
1240	h	4800 CFM (12.0 TR)	1	No	252000.00
1241	i	5600 CFM (14.0 TR)	1	No	294000.00
1242	j	6000 CFM (15.0 TR)	1	No	315000.00
1243	k	7200 CFM (18.0 TR)	1	No	378000.00
1244	l	8000 CFM (20.0 TR)	1	No	420000.00
1245	m	9200 CFM (23.0 TR)	1	No	483000.00
1246	n	9600 CFM (24.0 TR)	1	No	504000.00
1247	o	10000 CFM (25.0 TR)	1	No	525000.00
	6.6	CHILLED WATER PIPING			
1248	ELEC-6.6.1	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping (with necessary clamps, vibration isolators and fittings			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		but excluding valves, strainers, gauges etc.) duly insulated with TF quality expanded polystyrene moulded pipe section of density 20 kg/cu.m., as per specifications and as required complete in all respect. Note : The Pipes of sizes 150mm & below shall be M.S. 'C' class as per IS : 1239 and pipes size above 150mm shall be welded black steel pipe heavy class as per IS: 3589, from minimum 6.35mm thick M.S. Sheet for pipes upto 350 mm dia. and from minimum 7mm thick MS sheet for pipes of 400 mm dia and above			
		1. MS Pipe duly insulated with EPS and covered with 26 gauge aluminium cladding sheet. Insulation for the chilled water piping Inside the AHU room & Plant room with : TF quality expanded polystyrene moulded pipe section of density 20 kg/cu.m after a thick coat of adhesive wrapping with 500g polythene faced hessain and finally applying 26gauge aluminium sheet cladding., as per specifications and as required complete in all respect.			
1249	a	400mm dia pipe with 75mm thick insulation	1	Mtr	13750.00
1250	b	300mm dia pipe with 75mm thick insulation	1	Mtr	10780.00
1251	c	250 mm dia pipe with 75mm thick insulation	1	Mtr	9735.00
1252	d	200 mm dia pipe with 75mm thick insulation	1	Mtr	6490.00
1253	e	150 mm dia pipe with 75mm thick insulation	1	Mtr	6160.00
1254	f	100 mm dia pipe with 50mm thick insulation	1	Mtr	2970.00
1255	g	80 mm dia pipe with 50mm thick insulation	1	Mtr	2640.00
1256	h	65 mm dia pipe with 50mm thick insulation	1	Mtr	2200.00
1257	i	50 mm dia pipe with 50mm thick insulation	1	Mtr	1870.00
1258	j	40 mm dia pipe with 50mm thick insulation	1	Mtr	1470.00
1259	k	32 mm dia pipe with 50mm thick insulation	1	Mtr	1260.00
1260	l	25 mm dia pipe with 50mm thick insulation	1	Mtr	919.00
1261	ELEC-6.6.2	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		etc.) duly insulated with TF quality expanded polystyrene moulded pipe section of density 20 kg/cu.m., as per specifications and as required complete in all respect. Note : The Pipes of sizes 150mm & below shall be M.S. 'C' class as per IS : 1239 and pipes size above 150mm shall be welded black steel pipe heavy class as per IS: 3589, from minimum 6.35mm thick M.S. Sheet for pipes upto 350 mm dia. and from minimum 7mm thick MS sheet for pipes of 400 mm dia and above			
		MS Pipes with insulated with EPS covered with 7 mil fibreglass fabric & AF590 Lag coating Insulation for the chilled water piping Inside the HVAC shafts & inside building etc : TF quality expanded polystyrene moulded pipe section of density 20 kg/cu.m and shall be covered with 7 mil fibreglass fabric finished with AF5590 Lag coating., as per specifications and as required complete in all respect. Makes: Tata / Jindal			
1262	a	300mm dia pipe with 75mm thick insulation	1	Mtr	10450.00
1263	b	250 mm dia pipe with 75mm thick insulation	1	Mtr	9350.00
1264	c	200 mm dia pipe with 75mm thick insulation	1	Mtr	7590.00
1265	d	150 mm dia pipe with 75mm thick insulation	1	Mtr	6270.00
1266	e	100 mm dia pipe with 50mm thick insulation	1	Mtr	3740.00
1267	f	80 mm dia pipe with 50mm thick insulation	1	Mtr	2640.00
1268	g	65 mm dia pipe with 50mm thick insulation	1	Mtr	2310.00
1269	h	50 mm dia pipe with 50mm thick insulation	1	Mtr	1680.00
1270	i	40 mm dia pipe with 50mm thick insulation	1	Mtr	1523.00
1271	j	32 mm dia pipe with 50mm thick insulation	1	Mtr	1470.00
1272	k	25 mm dia pipe with 50mm thick insulation	1	Mtr	1029.00
1273	ELEC-6.6.3	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with TF quality expanded polystyrene moulded pipe			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		section of density 20 kg/cu.m., as per specifications and as required complete in all respect. Note : The Pipes of sizes 150mm & below shall be M.S. 'C' class as per IS : 1239 and pipes size above 150mm shall be welded black steel pipe heavy class as per IS: 3589, from minimum 6.35mm thick M.S. Sheet for pipes upto 350 mm dia. and from minimum 7mm thick MS sheet for pipes of 400 mm dia and above			
		MS Pipes with insulated with EPS covered with chicken wire mesh and finised with sand cement plaster. Insulation for the chilled water piping out side the building burried in ground : TF quality expanded polystrene moulded pipe section of density 20 kg/cu.m after a thick coat of adhesive wrapping with 500g polythene faced hessain and secured with 0.5mm x 20mm G.I wire mesh and two coats of cement plaster (each layer not less than 10mm) as per specifications and as required complete in all respect.			
1274	a	400mm dia pipe with 75mm thick insulation	1	Mtr	13750.00
1275	b	300mm dia pipe with 75mm thick insulation	1	Mtr	11770.00
1276	c	250 mm dia pipe with 75mm thick insulation	1	Mtr	10560.00
1277	d	200 mm dia pipe with 75mm thick insulation	1	Mtr	8360.00
	6.7	REPAIRS TO AIR CONDITIONERS			
1278	ELEC-6.7.1	Supply, Fabrication of 1set MS bracket suitable for fixing out door unit of split AC unit.	1	Set	914.00
	ELEC-6.7.2	Providing 2 runs of Copper tubes for suction and liquid between indoor and outdoor unit for split/Casseete Air-Conditioner including foaming etc., complete.			36750.00
1279	a	1. 3/4" x 3/8" 2. 5/8" x 1/4" 3. 1/2" x 1/4" or equivalent sizes	1	Mtr	943.00
1280	b	7/8" x 1/2"	1	Mtr	1496.00
1281	c	1 1/8" x 5/8"	1	Mtr	1749.00
1282	ELEC-6.7.3	Supply of 1.0 / 1.5 Ton brand new Rotary type sealed compressor.	1	No	7770.00
1283	ELEC-6.7.4	Supply of 2.0 Ton brand new Rotary type sealed compressor.	1	No	8820.00
1284	ELEC-6.7.5	Multi speed Fan Motor suitable for 1.0 /	1	No	1523.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		1.5 / 2.0 Ton Window A.C.Unit of makes Crompton / AU.			
1285	ELEC-6.7.6	Fan motor capacitor 6 mfd by new capacitor for A.C machine of 1.0 1.5 / Ton Capacity.	1	No	152.00
1286	ELEC-6.7.7	Thermostat switch suitable for 1.0 / 1.5 / 2.0 Ton A.C.Unit.	1	No	394.00
1287	ELEC-6.7.8	Starting capacitor of 80 to 120 mfd. by new approved make capacitor suitable for compressor motor of 1.0 / 1.5 Ton A.C. Unit.	1	No	194.00
1288	ELEC-6.7.9	Running capacitor of 36 mfd by new approved make capacitor suitable for compressor motor of 1.0 / 1.5 Ton A.C.Unit.	1	No	231.00
1289	ELEC-6.7.10	Relay by approved make having pickup voltage 220 Volts and dropout voltage 120 Volts suitable for 1.0 / 1.50 Ton A.C. Unit.	1	No	215.00
1290	ELEC-6.7.11	Filter and capillary tube including welding etc., complete for 1.0 / 1.5 / 2.0 Ton A.C.Unit.	1	No	467.00
1291	ELEC-6.7.12	Air filter suitable for 1.50 Ton Window A.C.Unit P.V.C. / NYLON.	1	No	215.00
1292	ELEC-6.7.13	Air filter suitable for 1.50 Ton Split A.C.Unit P.V.C. / NYLON.	1	No	457.00
1293	ELEC-6.7.14	Rewiring the entire Window type 1.50 Ton A.C.unit with 2.5 Sq.mm Flexible copper cable and putting the same in working conditions.	1	No	310.00
1294	ELEC-6.7.15	Complete servcing of 1.0 - 2.0 TR AC unit with cleaning the condensor cooling Coil etc., by blower and oiling the Fan Motor and Cleaning all parts and putting the machine in working condition.	1	No	525.00
1295	ELEC-6.7.16	Fan blade for 1.0 / 1.5 Ton A.C.Machine.	1	No	536.00
1296	ELEC-6.7.17	Grill of 1.0 / 1.5 ton A.C. Machine (for assembled Units).	1	No	935.00
1297	ELEC-6.7.18	Grill of 1.0 / 1.5 ton A.C. Machine of branded units.	1	No	1617.00
1298	ELEC-6.7.19	Rotary / Selector switch for window AC.	1	No	110.00
1299	ELEC-6.7.20	Flushing the line, leak testing, leak stopping, vaccumming, dehydrating and charging the gas in the refrigeration system for 1.0 / 1.5 / 2.0 Ton Window A.C.Unit.	1	No	1607.00
1300	ELEC-6.7.21	Flushing the line, leak testing, leak stopping, vaccumming, dehydrating and charging the gas in the refrigeration system for 1.5 / 2.0 Ton Split A.C.Unit.	1	No	2247.00
1301	ELEC-6.7.22	Spray painting of Refrigerator using good quality paint after scraping the surface etc.	1	No	772.00
1302	ELEC-6.7.23	Sealed compressor of 1/8 HP suitable for 165 to 185 Ltrs. Capacity Refrigerator.	1	No	2951.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1303	ELEC-6.7.24	Sealed compressor of 1/6 HP suitable for 285 / 310 Ltrs. Capacity Refrigerator.	1	No	3570.00
1304	ELEC-6.7.25	Supply of fan motor by new 1/10 to 1/12 H.P 1250 RPM fan motor for Water Cooler of 80-150 Ltrs.	1	No	1523.00
1305	ELEC-6.7.26	Gun metal Bush for fan motor.	1	No	121.00
1306	ELEC-6.7.27	Resistance type regulator for ceiling fans 900/1200/1400mm sweep complete erected on existing board.	1	No	42.00
1307	ELEC-6.7.28	Installation of Split Air Conditioners.	1	No	1680.00
1308	ELEC-6.7.29	Removing of existing Split Air Conditioners without damaging to copper pipe.	1	No	452.00
1309	ELEC-6.7.30	Installation of Cassette type Split Air Conditioners.	1	No	3360.00
1310	ELEC-6.7.31	Installation of Tower type Split Air Conditioners.	1	No	2783.00
1311	ELEC-6.7.32	Supply, Fabrication of 1set MS bracket suitable for fixing out door unit of ductable AC unit.	1	Set	1785.00
	6.8	EVAPORATIVE AIR COOLING SYSTEM			
1312	ELEC-6.8.1	Supply, Transportation, Installation, testing and commissioning of single phase evaporative air cooling unit with a capacity of 8000 CFM consisting cabinet and water tank made of polypropylene material, blower water pump of 40W, single phase 1.20 KW motor axial type fan with variable speed, 20 micron filtration, noise level less than 78 dBA with auto cleaning and water lack protection etc complete. Makes: Cool Breeze / Breeze Air or equivalent	1	No	97800.00
1313	ELEC-6.8.2	Supply, Transportation, Installation, testing and commissioning of single phase evaporative air cooling unit with a capacity of 11000 - 12000 CFM consisting cabinet and water tank made of polypropylene material, blower water pump of 40W, single phase 1.20 KW / 1.5 KW motor axial type fan with variable speed, 20 micron filtration, noise level less than 78 dBA with auto cleaning and water lack protection etc complete. Makes: Cool Breeze / Breeze Air	1	No	115550.00
1314	ELEC-6.8.3	Supply, Transportation, Installation, testing and commissioning of three phase evaporative air cooling unit with a capacity of 17000 CFM consisting cabinet and water tank made of polypropylene material, blower water pump of 60W, three phase, 3.0 KW motor, axial type fan with 2 speed, 20 micron filtration, noise level less than 78 dBA with auto cleaning and water lack	1	No	160000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		protection etc complete. Makes: Cool Breeze / Breeze Air or equivalent			
	ELEC-6.8.4	Supply, Factory fabrication, Transportation and erection of guage GI sheet Rectangular ducting with minimum 120 GSM as per SMACNA complete with neoprene rubber gaskets, Elbows, sheet metal / Angle iron / C-cleats / TPF Flanges as required, G.I.fasteners, bolts, nuts and washers, guide vanes as required, supports shall be galvanised threaded rods etc complete. Makes : Tata / Zindal			
1315	a	18 Guage (1.2 mm)	1	Sqft	160.00
1316	b	20 Guage (1.0 mm)	1	Sqft	146.00
1317	c	22 Guage (0.8 mm)	1	Sqft	133.00
1318	d	24 Guage (0.6 mm)	1	Sqft	110.00
	ELEC-6.8.5	Supply, Factory fabrication, Transportation and erection of guage GI sheet Spiral / Round ducting with minimum 120 GSM as per SMACNA complete with neoprene rubber gaskets, Elbows, sheet metal / Angle iron / C-cleats as required, G.I.fasteners, bolts, nuts and washers, guide vanes as required, supports shall be galvanised threaded rods etc complete. 9 /12 mm thick self adhesive class 'O' nitrille rubber insulation shall be done inside the ducting. Makes : Tata / Zindal			
1319	a	18 Guage (1.2 mm)	1	Sqft	177.00
1320	b	20 Guage (1.0 mm)	1	Sqft	162.00
1321	c	22 Guage (0.8 mm)	1	Sqft	146.00
1322	d	24 Guage (0.6 mm)	1	Sqft	117.00
		THERMAL INSULATION			
	ELEC-6.8.6	Supply and fixing of mm thickness closed cell nitrile rubber (Class O) insulation on existing duct after applying 2 coats of cold setting adhesive (CPRX Compound). The joints shall be sealed with 50mm wide and 3mm thick self adhesive nitrile rubber tape insulation complete as per specifications. Thermal conductivity should not exceed 0.037W/mk,			
1323	a	6 mm	1	Sqmt	482.00
1324	b	9 mm	1	Sqmt	680.00
1325	c	12 mm / 13 mm	1	Sqmt	904.00
1326	d	19 mm	1	Sqmt	1085.00
1327	e	25 mm	1	Sqmt	1566.00
	ELEC-6.8.7	Supply and fixing of mm thickness closed cell nitrile rubber (Class O)			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		insulation on existing duct after applying 2 coats of cold setting adhesive (CPRX Compound). The joints shall be sealed with 50mm wide and 3mm thick self adhesive nitrile rubber tape insulation complete with star bond coating , thermal conductivity should not exceed 0.037W/mk, and covered with 24 guage alluminium cladding as per specifications for out door applications.			
1328	a	6 mm	1	Sqmt	592.00
1329	b	9 mm	1	Sqmt	802.00
1330	c	12 mm / 13 mm	1	Sqmt	1078.00
1331	d	19 mm	1	Sqmt	1316.00
1332	e	25 mm	1	Sqmt	1844.00
1333	ELEC-6.8.8	Supply and fixing of 40mm thick thermocole insulation of 16 kg density with GI mesh and 12mm thick cement mortor plastering for out door unit.	1	Sqft	89.00
1334	ELEC-6.8.9	Supply and fixing of 40mm thick glasswool of 24 kg density with alluminium foil insulation for indoor duct.	1	Sqft	73.00
1335	ELEC-6.8.10	Supply, installation, testing and commissioning of GI volume control duct damper complete with neoprene rubber gaskets, nuts, bolts, flanges etc as per specifications. The thickness of the damper frame shall be 16 guage and damper plate shall be 18 / 16 guage.	1	Sqft	1053.00
1336	ELEC-6.8.11	Supply and fixing of alluminium powder coated supply air grill with volume control dampers.	1	Sqft	809.00
1337	ELEC-6.8.12	Supply and fixing of alluminium powder coated supply air grill without volume control dampers. (Architect shall approve the shade of epoxy power coating for the grills for supply and return air)	1	Sqft	696.00
1338	ELEC-6.8.13	Supply and fixing of alluminium powder coated supply air diffuser with volume control dampers. (Architect shall approve the shade of epoxy power coating for the grills for supply and return air)	1	Sqft	921.00
1339	ELEC-6.8.14	Supply and fixing of alluminium powder coated supply air diffuser without volume control dampers. (Architect shall approve the shade of epoxy power coating for the diffuser for supply and return air)	1	Sqft	790.00
1340	ELEC-6.8.15	Supply and fixing of angular iron frame with 2 coats of zincromat red oxide for installation of air cooling unit.	1	No	5738.00
1341	ELEC-6.8.16	Installation and commissioning charges for air cooling unit.	1	No	4778.00
	ELEC-6.8.17	Supply, installation, testing and			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		commissioning of the drain pipe with CPVC pipes with all accessories and insulation with 6mm thick closed cell nitrile rubber of the following sizes, with all required accessories Makes : Astral / Ashirvad or equivalent approved by the department			
1342	a	25 mm	1	Mtr	263.00
1343	b	32 mm	1	Mtr	332.00
1344	c	40 mm	1	Mtr	431.00
1345	d	50 mm	1	Mtr	504.00
	6.9	LOW SIDE WORK			
1346	ELEC-6.9.1	Lifting, shifting of unit to terrace, installation,testing & commissioning of VRV / VRF outdoor units of the following capacities with required supports with necessary bolts, screws and nut etc complete upto 7th floor			
	a	12HP	1	No	6553.00
	b	14HP	1	No	7654.00
	c	16HP	1	No	8729.00
	d	18HP	1	No	9835.00
	e	20HP	1	No	10943.00
	f	24 HP	1	No	13119.00
1347	ELEC-6.9.2	Shifting of Unit to room , Installation,Testing & Commissioning of VRV / VRF indoor units (4way- Cassette) of the following capacities required supports with necessary bolts, screws and nut etc complete .			
	a	4-way Cassette type Indoor A.C units	1	No	3163.00
	b	Concealed type ducted type Indoor A.C units	1	No	5060.00
1348	ELEC-6.9.3	Supply, installation, testing and commisioning of 2 runs of following sizes of all refregerent liquid and gas piping using eddy current free hard copper pipes and fittings like elbows, couplers, T - joints, Brass fittings "U" loops, expantion loops, refnet joints etc, for VRV / VRF System.	1	Mtr	1803.00
		Insulation of pipes using 19mm for supply and 13mm returns thick elastometric closed cell nitrile rubber insulation materials having class "O" for fire properties structural clamps with hard PVC pipes sleeve under the clamp to protect insulation at supports tagging to enable tracing connectivity to respective units as per drawings to be generated by the agency submission of test reports in approved format forms a part of this item scope, making up of any leakages including supply, labour, consumables,			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		refrigerant top up and incidental expenses. Makes : Mandev / or Equivalent as approved by the department			
		a)12.7 X 28.6mm b)15.9 X 28.6mm c)19.1 X 34.9mm d)19.1 X 41.3mm e)22.2 X 41.3mm			
1349	ELEC-6.9.4	Supply, transportation and installation of Hot- Dip GI floor mounting support stands for VRF outdoor units (positioned on Terrace or floor level), as per the standards with all necessary components, etc (Big Foot System)			
	a	Upto and below12 HP	1	No	7590.00
	b	12 to 20HP	1	No	13119.00
	c	22HP to 40HP	1	No	26224.00
1350	ELEC-6.9.5	Pressure testing and commissioning of total VRV System with required Gas charging etc complete	1	HP	924.00
1351	ELEC-6.9.6	Supply, transportation and installation of Copper piping outdoor insulation covered with fibre glass cloth, coated with UV paint	1	Mtr	246.00
1352	ELEC-6.9.7	Supply, installtion ,testing and commissioning of fire damper with fuse link UL-555 certified	1	Sqft	734.00
1353	ELEC-6.9.8	Supply, installtion ,testing and commissioning of Acoustic insullation 10 mm thick open cell nitrile rubber	1	Sqft	90.00
1354	ELEC-6.9.9	Supply,installation,testing & commissioning of underdeck insulation 25mm thickness, density to be 32kg/cum the material should be Class O chemically cross linked closed cell polyethylene sheet covered with Alupet foil. Insulation to be provided complete for fittings, adhesive etc all as per specifications. The insulation shall be stuck directly to the roof using proper fixing.	1	Sqft	61.00
	6.10	STABILIZERS			
	ELEC-6.10.1	Supply of ----- Stabilizer Makes : V-Guard / Real Guard / Uni Stab / ITL.			
1355	a	0.5 KVA	1	No	1063.00
1356	b	1.0 KVA .	1	No	1733.00
1357	c	3.0 KVA	1	No	2195.00
1358	d	4.0 KVA	1	No	2888.00
1359	e	5.0 KVA	1	No	3465.00
	ELEC-6.10.2	Supply of ----- Stabilizer Makes :Keeline / Soft Line / Capri.			
1360	a	0.5 KVA	1	No	832.00
1361	b	1.0 KVA .	1	No	1491.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1362	c	3.0 KVA	1	No	1917.00
1363	d	4.0 KVA	1	No	2633.00
1364	e	5.0 KVA	1	No	3165.00
	6.11	ACCESS CONTROL SYSTEM			
		BOOM BARRIER			
1365	ELEC-6.11.1	Boom Barrier 6Mtr (IP 54) Supply, Installation, Testing and Commissioning of Electromechanical motorized Automatic Boom Barrier of Boom length 6 Mtr with 100% duty cycle, Boom rest, Microprocessor controlled control panel, push buttons, 24VDC motor with all accesories required such as Optical Sensor, integration with smart cards, proximity based access control systems and VFD Drive etc.,This shall be with safety features like Induction and safety loop, remote operating facility with remote control unit. Make : Godrej / Vigi Guard / Gunnebo / Magnetic / Automatic Systems or equivalent as approved by the intelligence department	1	No	168300.00
1366	ELEC-6.11.2	Boom Barrier 4Mtr (IP 54) Supply, Installation, Testing and Commissioning of Electromechanical motorized Automatic Boom Barrier of Boom length 4 Mtr with 100% duty cycle, Boom rest, Microprocessor controlled control panel, push buttons, 24VDC motor with all accesories required such as Optical Sensor, integration with smart cards, proximity based access control systems and VFD Drive etc.,This shall be with safety features like Induction and safety loop, remote operating facility with remote control unit. Make : Godrej / Vigi Guard / Gunnebo / Magnetic / Automatic Systems or equivalent as approved by the intelligence department	1	No	156200.00
1367	ELEC-6.11.3	Boom Barrier 3Mtr (IP 54) Supply, Installation, Testing and Commissioning of Electromechanical motorized Automatic Boom Barrier of Boom length 3 Mtr with 100% duty cycle, Boom rest, Microprocessor controlled control panel, push buttons, 24VDC motor with all accesories required such as Optical Sensor, integration with smart cards, proximity based access control systems and VFD Drive etc.,This shall be with safety features like Induction and safety loop, remote operating facility with remote control unit. Make : Godrej / Vigi Guard / Gunnebo /	1	No	145200.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Magnetic / Automatic Systems or equivalent as approved by the intelligence department			
1368	ELEC-6.11.4	Boom Barrier 1.5 Mtr (Two wheeler) (IP 54) Supply, Installation, Testing and Commissioning of Electromechanical motorized Automatic Boom Barrier of Boom length 1.5 Mtr with 100% duty cycle, Boom rest, with Microprocessor controlled control panel, push buttons, 24VDC motor, with all accesories required such as Optical Sensor, integration with smart cards, proximity based access control systems and VFD Drive etc. This shall be with safety features like Induction and safety loop, remote operating facility with remote control unit. Make : Godrej / Vigi Guard / Gunnebo / Magnetic / Automatic Systems or equivalent as approved by the intelligence department approved by the intelligence department.	1	No	111100.00
1369	ELEC-6.11.5	Supply, Installation, Testing and Commissioning of Long range Card Readers having 3/6 Meter high SS Pole for Mounting Long Range Vehicle Tag Reader(>10Mtrs) and Smart Card Reader along with Outdoor Enclosure for Smart Card Reader with necessary accessories. -IP 66 Rated having smart card reader with 14 Inch Read Range for Two Wheeler's and Visitor Cars, -Long range Vehicle Tag Reader IP 66 Rated having Read range of >10 Meters for reading vehicle tags.	1	No	97900.00
1370	ELEC-6.11.6	Supply, Installation, Testing, Commissioning of UHF Gen 2 Passive Vehicle Tags capable of application on Car windshields(which will be programmed for operation of the boom barriers). Make: Matrix / HID / Honeywell or equivalent as approved by the intelligence department	1	No	387.00
1371	ELEC-6.11.7	Traffic Bollard (K-8 / K 10 rated) : Supply, Installation, Testing and Commissioning of ultra-high resistance to impact and weather Bollard unit consisting of Single blocking bollards with hydraulic drive unit installation on concrete plinth & speed control, Shall be reliable in operation even after power failure, weld free bollard cylinder, auto wiping arrangement, low maintenance and can be operated with remote control switch,	1	No	825000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Control panel with push buttons accessories enclosed in an outdoor cabinet. Make: FAAC/ Gunnebo / TESCON / ATG Access or equivalent as approved by the intelligence department (approved by NABL)			
		Note :			
		1. CE Certification of Bollards			
		2. 2000 Hr Salt Spray Certificate by NABL Lab.			
		3. Tested Life of 10 Million Operations			
		4. HPU must be IP 68 Certified from NABL accredited Lab			
		5. Number of Blocks on Bollards - 3 / 4 5 / 6 Nos			
		Under Vehicle Scanning System (UVSS)			
1372	ELEC-6.11.8	Supply, Installation, Testing and Commissioning of Weather proof and outdoor type (IP 68) UVSS. It should be able to capture very high resolution and complete composite under body usage of any vehicle passing over it, without the vehicle being stopped and also it should be able to capture complete image of the vehicle on accidentally stoppage on the UVSS system with same clarity by using a high quality line/ area scan CCD camera, with fish eye lens of high resolution & Loop based sensors, able to handle the vehicle speeds ranging from 5-30 Km/hr, automatically and dynamically adjusting the brightness and contrast of the system to ensure good quality images, irrespect of different light condition, automated number plate reading System (ANPRS) and recording.	1	No	3080000.00
		There should be 3 or more additional cameras for capturing motion video images etc, It shall also include i7 based computer system with 8GB RAM, HDD 1TB Linux operated, Min 3 PCI slots or as required by the system for operation along with cables. The system shall have 1 KVA ONLINE UPS with backup of 01 hour and network port for connectivity along with all cables and fixing accessories. including all required civil works along with water draining system in case of water egress into the pit as specifications available in department. Make: Kritikal (Model of Zenscan/ NUVOSCAN)/or equivalent as approved by the intelligence department.			
		Multi Zone Door Frame Metal Detection (MDFMDS)			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1373	ELEC-6.11.9	Supply, Installation, Testing and Commissioning of Multi Zone (8 zone) Door frame metal detector ,should detect ferrous, Non Ferrus and Ferrite metals, rechargable internal battery, traffic counter and capacity 30 person/ minute, etc as per the technical specification available in department. Make : RAPISCAN / or equivalent as approved by the intelligence department.	1	No	247500.00
		Hand held metal detector (HHMD)			
1374	ELEC-6.11.10	Supply, Installation, Testing and hand held metal detector of High sensitivity, detect large, medium and small and Very small objects, metals of ferros, Non Ferrous and Ferrite, should give a visible audible alarm, Visual indications for On, metal, charge, low battery etc. with inbuilt charger , rechargable batteries etc., complete as per the specifications available in department. Make : RAPISCAN/ or equivalent as approved by the intelligence department.	1	No	14520.00
		X-Ray Baggage scanner			
1375	ELEC-6.11.11	Supply, Installation, Testing and Commissioning of X-Ray Baggage scanner have inspection tunnel dimension 600 x 400 + 10%, conveyer height 694 mm + 10 mm approximately, 100 Kg or more capacity conveyor, speed of conveyor belt 0.18 & 3 m /s, movement of conveyor bidirectional, suitable to operate 170 - 230 V AC, 50 Hz, video display unit of 19" 2 CD/LED monitor high resolution, low radiation, flecker free, resolution at least 1280 x 1024 mm.	1	No	1936000.00
		Machine should have the feature of warning the operator by stopping of the belt incase of presence of high obsorbing material in a baggage, recalling of images, archiving of more images, control desk with security provisions, locking provision, online recording facility, images can be recorded in CD R/W and a USB drive, suitable software as per the technical specification available in department. Make : RAPISCAN/ or equivalent as approved by the intelligence department.			
		SECTION - 7			
		SWAGED POLES / OCTOGONAL POLES, GARDEN POSTS AND ACCESSORIES			
	7.1	SWAGED POLES			
1376	ELEC-7.1.1	Fabrication, supply and transportation of all sizes swaged poles up to site confirming to IS 2713 / 1980	1	Kg	85.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		specifications. The pole should be painted with primary coat of red oxide and black bituminous paint up to ground level with base plate, including cost of all materials etc., complete.(Rate per K. G)			
	7.2	M S POLES FOR GARDEN POSTS			
1377	ELEC-7.2.1	Fabrication and Supply of M.S. Poles for garden posts with 'B' class 60.25mm outer dia with base plate and suitable pole cap including cost and conveyance of all material including fixing of luminaire and labour charges etc., complete. (Rate per K. G)	1	Kg	74.00
1378	ELEC-7.2.2	Supply of different sizes of M. S. Pipe brackets (Rate per K.G)	1	Kg	74.00
	7.3	OCTOGONAL POLES			
	ELEC-7.3.1	Fabrication, Transportation and supply of hot-dip galvanized Octogonal Pole with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including chain for anti theft mechanism, supply of suitable boards with bakelite sheet, din channel for MCB's as per IS specification suitable to withstand the wind speed of 180 KMPH for Makes: BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / CONSOUL / Lysaght pole / BPP / Surya			
1379	a	7.50 Mtrs height Pole having dimensions Bottom 130mm, Top 70mm with 3mm thick, base plate 220 x 220 x 12mm and 4 Nos of M20 x 700mm long 'J' bolts along with template or equivalent.	1	No	13230.00
1380	b	9 Mtrs height Pole having dimensions Bottom 155mm, Top 70mm with 3mm thick, base plate 260 x 260 x 16mm and 4 Nos of M24 x 750mm long 'J' bolts along with template or equivalent.	1	No	18632.00
1381	c	10 Mtrs height Pole having dimensions Bottom 175mm, Top 70mm with 3mm thick, base plate 275 x 275 x16mm and 4 Nos of M24 x 750mm long 'J' bolts along with template or equivalent.	1	No	21168.00
1382	d	12 Mtrs height Pole having dimensions Bottom 240mm, Top 90mm with 4mm thick, base plate 320 x320 x20mm and 4 Nos of M24 x 850mm long 'J' bolts along with template or equivalent.	1	No	29768.00
	7.4	BRACKETS			
	ELEC-7.4.1	Fabrication, Transportation and supply of ----- standard Bracket made with MS galvanized 48 / 50mm dia Pipe. Makes: BAJAJ / VALMONT / TRANSRAIL /			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		SKIPPER / UTKARSH / LAASMA / CONSOUL / Lysaght pole / BPP / Surya			
1383	a	1.0 Mtr Length Single Arm	1	No	1433.00
1384	b	1.0 Mtr length Double Arm	1	No	1776.00
1385	c	1.50 Mtr Length Single Arm	1	No	1896.00
1386	d	1.50 Mtr length Double Arm	1	No	3197.00
	ELEC-7.4.2	Fabrication, Transportation and supply of -----complete with all accessories with MS galvanized 50mm dia Pipe. Makes: BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / CONSOUL / Lysaght pole / BPP / Surya			
1387	a	1.0 Mtr sword type or any decorative Single arm bracket with dooms	1	No	4025.00
1388	b	1.0 Mtr sword type or any decorative double arm bracket with dooms.	1	No	4741.00
1389	c	1.5 Mtr sword type or any decorative Single arm bracket with dooms	1	No	4520.00
1390	d	1.5 Mtr sword type or any decorative double arm bracket with dooms.	1	No	5899.00
	ELEC-7.4.3	Fabrication, Transportation and supply of -----bracket with PU paint complete with all accessories with MS galvanized 50mm dia Pipe. Makes: BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / CONSOUL / Lysaght pole / BPP / Surya			
1391	a	1.5 Mtr decorative galvanized Single arm	1	No	5326.00
1392	b	1.5 Mtr decorative galvanized double arm	1	No	10055.00
	7.5	HIGH MAST POLES			
1393	ELEC-7.5.1	Fabrication, transportation and supply of 12 Mtrs Polygon High Mast with single section of 3mm thick of Bottom 360mm and Top 150mm dia with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate, having a base plate of size 520mm dia 16mm thick with its accessories. Mast shall be in single section for 12 Mtrs . Mast shall be hot dip galvanized and suitable for wind velocity of 180 KMPH as per IS 875 part 3 including head frame, 2 point suspension system with steel rope 6mm dia (7/19) construction double drum winch / power tool , and necessary cable trailer connections and single speed motor with M 24 x 800 mm foundation bolts of required quantity, suitable for 6 luminaires with GLS type aviation twin lamp. Makes : BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / CONSOUL	1	No	116865.00
1394	ELEC-7.5.2	Fabrication, transportation and supply of	1	No	152145.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		16 Mtrs Polygon High Mast with two sections of Bottom 4mm thick and Top section with 3mm thick with GLS type aviation lamp of Bottom 360mm and Top 150mm dia with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate, having a base plate of size 560mm dia 25mm thick with its accessories. Mast shall be in 2 sections and should be hot dip galvanized and suitable for wind velocity of 180 KMPH as per IS 875 part 3 including head frame, 2 point suspension system with steel rope 6mm dia (7/19) construction double drum winch / power tool, and necessary cable trailer connections and single speed motor with M 24 x 800 mm foundation bolts of required quantity, suitable for 6 Flood lights, with GLS type aviation twin lamp Makes : BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / CONSOUL			
1395	ELEC-7.5.3	Fabrication, transportation and supply of 20 Mtrs Polygon High Mast with two sections of Bottom 4mm thick and Top section with 3mm thick of Bottom 410mm and Top 150mm dia with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate, having a base plate of size 570mm dia 25mm thick with its accessories. Mast shall be in 2 sections and should be hot dip galvanized and suitable for wind velocity of 180 KMPH as per IS 875 part 3 including head frame, 2 point suspension system with steel rope 6mm dia (7/19) construction double drum winch / power tool, and necessary cable trailer connections and single speed motor with M 24 x 800 mm foundation bolts of required quantity, suitable for 12 flood lights, with GLS type aviation twin lamp. Makes : BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / CONSOUL	1	No	189630.00
	7.6	FEEDER PILLER BOX			
	ELEC-7.6.1	Supply and fixing of suitable out door feeder piller box of size made with 14 SWG CRCA sheet with double door arrangement, making powder coating after processing of 7 Tank process, lock and key, hinges, rubber gasket, danger board, suitable angle iron stand for mounting the feeder pillar with cement concrete, including Supply and fixing of Legrand / Schnieder make ----- -- as out goings, indication lamps, din channel, 6 Sqmm 3 core copper cable for			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		invidual light control, connectors, bus bars, shroudings, gland plates and provision for 3 phase energy meter etc., complete for finished item of work and suitable wiring provision for connecting the nature switch with following.			
1396	a	40A 4 Pole Isolator as incomer, 6 Nos 6-32A SP MCBs	1	No	24680.00
1397	b	63A, 4 Pole isolator as incomer, 6 Nos 6-32A SP MCBs	1	No	24814.00
1398	c	63A, 4 Pole isolator as incomer, 9 Nos 6-32A SP MCBs	1	No	25747.00
	ELEC-7.6.2	Supply and fixing of suitable out door feeder piller box of size made with 14 SWG CRCA sheet with double door arrangement, making powder coating after processing of 7 Tank process, lock and key, hinges, rubber gasket, danger board,suitable angle iron stand for mounting the feeder pillar with cement concrete, including Supply and fixing of Legrand / Schnieder make ----- ----- as out goings, indication lamps, din channel, 6 Sqmm 3 core copper cable for invidual light control, connectors, bus bars, shroudings, gland plates and provision for 3 phase energy meter etc., complete for finished item of work and suitable wiring provision for connecting the nature switch with following.			
1399	a	40A-63A, 4 Pole MCB as incomer, 6 Nos 6-32A SP MCBs	1	No	26280.00
1400	b	63A, 4 Pole MCB as incomer, 9 Nos 6-32A SP MCBs	1	No	27081.00
	7.7	ERRECTION OF HIGH MAST POLES			
1401	ELEC-7.7.1	Earth work exacavation with a approximate quantity of 4.0 Cum for errection of 12 Mtrs high mast and refilling with a quantity of 0.53 Cum of PCC 1:4:8, 1.50 Cum M 20 grade concrete and (80 Kgs) reinforced steel of 12mm / 10mm / 8mm, Soil bearing capacity of 10 T/Sqm, Anchor plate with cost and conveyance of all above materials including labour charges for errection of High Mast and Carraige etc complete including soil testing.	1	No	32456.00
1402	ELEC-7.7.2	Earth work exacavation with a approximate quantity of 6.0 Cum for errection of 16 Mtrs high mast and refilling with a quantity of 0.65 Cum of PCC 1:4:8, 2.60 Cum M 20 grade concrete and (110 Kgs) reinforced steel of 12mm / 10mm / 8mm, Soil bearing capacity of 10 T/Sqm, Anchor plate with cost and	1	No	41349.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		conveyance of all above materials including labour charges for erection of High Mast and Carraige etc complete including soil testing.			
1403	ELEC-7.7.3	Earth work exacavation with a approximate quantity of 7.0 Cum for erection of 20 Mtrs high mast and refilling with a quantity of 0.75 Cum of PCC 1:4:8, 3.60 Cum M 20 grade concrete and (140 Kgs) reinforced steel of 12mm / 10mm / 8mm, Soil bearing capacity of 10 T/Sqm, Anchor plate with cost and conveyance of all above materials including labour charges for erection of High Mast and Carraige etc complete including soil testing.	1	No	52668.00
	7.8	CONICAL POLES			
1404	ELEC-7.8.1	Fabrication,transportation and supply of MS hot dip galvanized 7.5 Mtrs long Conical poles with 3mm thick HT steel plate with a bottom 145mm dia and top 75mm dia, base plate of size 240mmx240mmx12mm thick welded to bottom of pole, terminal box with door size of 500mm x 100mm with all accessories connector and fuse base and a fixing arrangements for advertisements holdings, foundation bolts with washers and nuts 4 sets and as per the directions of field engineers during execution for finished item of work. Makes: BAJAJ / VALMONT / TRANSRAIL	1	No	14000.00
1405	ELEC-7.8.2	Fabrication,transportation and supply of MS hot dip galvanized 9.0 Mtrs long Conical poles with 3mm thick HT steel plate with a bottom 165 - 173mm dia and top 75mm dia, base plate of size 275mmx275mmx16mm thick welded to bottom of pole, terminal box with door size of 500mm x 100mm with all accessories connector and fuse base and a fixing arrangements for advertisements holdings, foundation bolts with washers and nuts 4 sets and as per the directions of field engineers during execution for finished item of work. Makes: BAJAJ / VALMONT / TRANSRAIL	1	No	18958.00
1406	ELEC-7.8.3	Fabrication,transportation and supply of MS hot dip galvanized 10.0 Mtrs long Conical poles with 3mm thick HT steel plate with a bottom 175-184mm dia and top 75mm dia, base plate of size 275mmx275mmx16mm thick welded to bottom of pole, terminal box with door size of 500mm x 100mm with all accessories connector and fuse base and a	1	No	23963.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		fixing arrangements for advertisements holdings, foundation bolts with washers and nuts 4 sets and as per the directions of field engineers during execution for finished item of work. Makes : BAJAJ / VALMONT / TRANSRAIL			
	7.9	DECORATIVE DRAGON TYPE BRACKET WITH POLE			
	ELEC-7.9.1	Fabrication, Transportation and supply of hot-dip galvanized Octogonal Pole with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including the supply of suitable boards with bakelite sheet and MCB's as per IS specification suitable to withstand the wind speed of 180 KMPH for 9 Mtrs height Pole having dimensions Bottom 185 mm,. Top 70mm with 3mm thick, base plate 275 x 275 x 20mm and 4 Nos of M24 x 1000 long 'J' bolts along with templates Including Supply of 1.5M Dragon type decorative --- ----- Makes: VALMONT / BAJAJ / TRANSRAIL			
1407	a	galvanised Double Arm with PU Painted bracket.	1	No	29260.00
1408	b	galvanised Single Arm with PU Painted bracket.	1	No	25080.00
1409	c	Double arm Galvanised finish bracket.	1	No	25080.00
1410	d	Single arm Galvanised finish bracket.	1	No	22440.00
	ELEC-7.9.2	Fabrication, Transportation and supply of hot-dip ----- Curved Octogonal Pole with BSEN - 10025 grade S 355 JO steel plate for shaft Including Supply of 0.2M long Single arm bracket, IS 2062 for base plate with door opening arrangement, including the supply of suitable boards with bakelite sheet and MCB's as per IS specification suitable to withstand the wind speed of 180 KMPH for 9 Mtrs height Curved Pole having dimensions Bottom 180mm,. Top 85mm with 3mm thick, base plate 400 x 400 x 20mm and 4 Nos of M24 x 750 long 'J' bolts along with templates. Makes: VALMONT / BAJAJ / TRANSRAIL			
1411	a	galvanized	1	No	24530.00
1412	b	galvanized PU Paint finish	1	No	33220.00
	7.10	THERMO PLASTIC POLE BOXES			
	ELEC-7.10.1	Supply of following sizes thermo plastic pole boxes IP 65 protection. Make : Hensel / Sintex / Sadhrish / EPP or equivalent			
1413	a	200X150X100	1	No	832.00
1414	b	250X200X120	1	No	1028.00
1415	c	300X150X170	1	No	1201.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1416	d	300X200X125	1	No	1294.00
1417	e	300X300X170	1	No	1709.00
1418	f	400X300X200	1	No	1848.00
1419	g	300X450X170	1	No	2333.00
1420	h	490X390X250	1	No	2576.00
1421	i	300X600X170	1	No	2772.00
	7.11	FOUNDATION AND ERRECTION CHARGES OF POLES			
1422	ELEC-7.11.1	Erection charges for 7.50 Mts long Octagonal pole on bridge kerb portion (R.C.C). duly provided 4 Nos 8" Anchor bolts/ M20xsuitable "J" type bolts etc duly drilling holes to RCC slab and with V.C.C. M.15 concrete for base concreting up to a height of 8" with necessary Reinforcement work etc. including cost and conveyance of all material and all labour charges etc. complete as directed by the department officers.	1	No	4269.00
1423	ELEC-7.11.2	Foundation and erection charges with special T&P, for 7.50 Mtrs long Octagonal / Conical pole duly erecting on base plate duly provided 4 Nos foundation bolts with nuts with providing of 0.45Mtrx0.45Mtrsx1.20 Mtr size M20 cc work vibrated concreting mixing with necessary steel (10kgs) reinforcement as directed by the field engineers during execution including centering, decentering, water curing as required, soil excavation, back filling, muffing removal and coil earthing including all labour charges and cost and conveyance of materials etc. complete.	1	No	6010.00
1424	ELEC-7.11.3	Foundation and erection charges with special T&P, for 9.00Mtrs / 10Mtrs long Octagonal / Conical pole duly erecting on base plate duly providing 4 Nos foundation bolts with nuts with providing of 0.60Mtrx0.60Mtrsx1.40 Mtr size M20 cc work vibrated concreting mixing with necessary steel (15kgs) reinforcement as directed by the field engineers during execution including centering, decentering, water curing as required, soil excavation, back filling, muffing removal and coil earthing including all labour charges and cost and conveyance of materials etc. complete.	1	No	8005.00
1425	ELEC-7.11.4	Foundation and erection charges with special T&P, for 12Mtrs long Octagonal / Conical pole duly erecting on base plate duly provided 4 Nos foundation bolts with nuts with providing of 0.67Mtrx0.67Mtrsx1.50 Mtr size M20 cc work vibrated concreting mixing with	1	No	10038.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		necessary steel (20kgs) reinforcement as directed by the field engineers during execution including centering, decentering, water curing as required, soil exacavation, back filling, muffing removal and coil earthing including all labour charges and cost and conveyance of materials etc. complete.			
	7.12	G R P POLES			
	ELEC-7.12.1	Supply and transportation of following glass reinforced polymer (GRP) composite type Conical pole with single arm bracket of length 1Mtr and internal junction box including labour charges etc., complete. Makes: Bajaj / Valmont / Kemrock / Sumip.			
1426	a	3.00 Mtrs height, Bottom dia 130-143mm, Top 76-89mm, AV thickness 6mm and to withstand maximum wind velocity 155Km/Hr	1	No	12220.00
1427	b	4.00 Mtrs height, Bottom dia 140-145mm, Top 76-89mm, AV thickness 6mm and to withstand maximum wind velocity 155Km/Hr	1	No	15275.00
1428	c	6.00 Mtrs height, Bottom dia 150-170mm, Top 76-89mm, AV thickness 6mm and to withstand maximum wind velocity 155Km/Hr	1	No	19393.00
1429	d	8.00 Mtrs height, Bottom dia 150-193mm, Top 76-89mm, AV thickness 6mm and to withstand maximum wind velocity 155Km/Hr	1	No	25636.00
1430	e	10.00 Mtrs height, Bottom dia 207-227mm, Top 76-89mm, AV thickness 6mm and to withstand maximum wind velocity 155Km/Hr	1	No	37058.00
	ELEC-7.12.2	Supply and transportation of base bracket suitable for glass reinforced polymer (GRP) composite type pole including labour charges etc., complete. Makes : Bajaj / Kemrock / Sumip.			
1431	a	For 3.00 Mtrs Pole	1	No	2046.00
1432	b	For 4.00 Mtrs Pole	1	No	2046.00
1433	c	For 6.00 Mtrs Pole	1	No	2457.00
1434	d	For 8.00 Mtrs Pole	1	No	2869.00
1435	e	For 10.00 Mtrs Pole	1	No	4934.00
	7.13	CONTROL PANEL BOARD			
	ELEC-7.13.1	Fabrication and erection of ----- sheet steel enclosure for power control cubicle panel / boxes etc., including cutting, bending drilling, welding and reveting etc., complete with cleaning with 7 tank process and painting with powder coating including cost and conveyance of all materials and labour charges.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1436	a	14SWG CRCA (2mm)	1	Sq Mtrs	5621.00
1437	b	16 SWG CRCA(1.6mm)	1	Sq Mtrs	5247.00
1438	c	18SWG CRCA(1.25mm)	1	Sq Mtrs	4686.00
		NOTE : For Panels fabrication as per IEC 61439, the rate should be considered 1.4 times of above price			
	7.14	METERING EQUIPMENT			
	ELEC-7.14.1	Supply and erection of 0-500V ----- --- on exisiting panel board including connections etc., complete. MAKES : CONZERVE / ELMEASURE / L&T / SEIMENS.			
1439	a	Digital Volt meter	1	No	2310.00
1440	b	Analog Volt meter	1	No	462.00
	ELEC-7.14.2	Supply and erection of 0-100 / 200 / 400 / 600 /1000 -----of size 96x96mm on existing panel board including connections etc., complete. MAKES : CONZERVE / ELMEASURE / L&T / SEIMENS.			
1441	a	Digital Ammeter	1	No	2310.00
1442	b	Analog Ammeter	1	No	462.00
1443	ELEC-7.14.3	Supply and erection of Digital frequency meter on existing panel board including connections etc., complete. MAKES : CONZERVE / ELMEASURE / L&T / SEIMENS.	1	No	2888.00
1444	ELEC-7.14.4	Supply and erection of Digital power factor meter, 3 phase, 4 wire balanced or unbalanced load 5A, 415V of size 96 x 96mm on existing panel board including connections etc., complete. MAKES : CONZERVE / ELMEASURE / L&T / SEIMENS.	1	No	2888.00
	ELEC-7.14.5	Supply and erection of L.T. 3phase Digital multifunction -----for measuring all the parameters (Voltage, Current, Frequency, Power factor, KW, KVA, KWH, KVA, KVAH, KVAR and THD Events) on existing box panel board including connections etc., complete. MAKES : CONZERVE / ELMEASURE / L&T / SEIMENS.			
1445	a	energy meter Class I with LED display	1	No	7508.00
1446	b	energy meter Class I RS 485 with LED display	1	No	8663.00
1447	c	energy meter Class 0.5 RS 485 with LED display	1	No	10164.00
1448	d	energy meter Class I with LCD display	1	No	8663.00
1449	e	energy meter Class I RS 485 with LCD display	1	No	9702.00
1450	f	energy meter Class 0.5 RS 485 with LCD display	1	No	11319.00
1451	g	bidirectional import / export energy meter Class I with LED display	1	No	16574.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1452	h	bidirectional import / export energy meter Class I RS 485 with LED display	1	No	17648.00
1453	i	bidirectional import / export energy meter Class I with LCD display	1	No	17648.00
1454	j	bidirectional import / export energy meter Class I RS 485 with LCD display	1	No	18711.00
	ELEC-7.14.6	Supply and erection of ----- -----Makes : L&T / C&S / SALZAR / HPL / Siemens			
1455	a	Selector switch for Voltmeter / Ammeter on the existing panel including connections etc., complete.	1	No	203.00
1456	b	LED indication lamps on the existing panel board.	1	No	156.00
1457	c	Push buttons on the existing panel board.	1	No	87.00
1458	ELEC-7.14.7	Supply and erection of LT current transformer with bar primary 100/5A to 1000 / 5A ratio in the existing panel including connections etc., complete. MAKE : KAPPA	1	No	508.00
	ELEC-7.14.8	Supply and fixing of----- Electronic energy Meter, 240V AC, 50 HZ as per IS13010 up to 40A range with 200% over load capacity complete with connections etc., complete on the existing board. Makes : CONZERVE / ELMEASURE / MECO / HPL / HAVELLS.			
1459	a	Single phase	1	No	1138.00
1460	b	Three phase	1	No	3280.00
	ELEC-7.14.9	Supply and fixing of ----- APFC Relay with connection etc complete. Makes : L&T / Siemens / EPCOS / Schneider / Elmeasure			
1461	a	8 Stage	1	No	15038.00
1462	b	12 Stage	1	No	16979.00
1463	c	14 Stage	1	No	20132.00
	ELEC-7.14.10	Supply and fixing of ----- Rating capacitor duty contactor Makes : L&T / Siemens / Meher			
1464	a	3.0 KVAR	1	No	1868.00
1465	b	5.0 KVAR	1	No	1953.00
1466	c	8.5 KVAR	1	No	2255.00
1467	d	10.0 KVAR	1	No	2450.00
1468	e	12.5 KVAR	1	No	2620.00
1469	f	15.0 KVAR	1	No	3638.00
1470	g	20.0 KVAR	1	No	4220.00
1471	h	25.0 KVAR	1	No	4730.00
1472	i	50.0 KVAR	1	No	13074.00
	ELEC-7.14.11	Supply and fixing of detuned reactor 7% 3 phase 440V range ----- Makes : L&T / Siemens / Meher			
1473	a	5.0 KVAR	1	No	9459.00
1474	b	10.0 KVAR	1	No	14917.00
1475	c	12.5 KVAR	1	No	16554.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1476	d	15.0 KVAR	1	No	18556.00
1477	e	20.0 KVAR	1	No	21648.00
1478	f	25.0 KVAR	1	No	22922.00
1479	g	50.0 KVAR	1	No	36383.00
1480	h	75.0 KVAR	1	No	54210.00
1481	i	100.0 KVAR	1	No	73857.00
	ELEC-7.14.12	Supply of MPP type heavy duty capacitor of operating voltage Makes:L&T/Siemens/Schneider/Epcos.			
1482	a	not less than 440V of cylyndrical type of 1 KVAR to 2 KVAR	1	KVAR	393.00
1483	b	not less than 480V of cylyndrical type more than 2 KVAR	1	KVAR	381.00
1484	c	not less than 440V of box type of 1 KVAR to 4 KVAR	1	KVAR	508.00
1485	d	not less than 480V of box type of 5 KVAR to 50 KVAR	1	KVAR	462.00
	7.15	SUB STATION EQUIPMENT / SERVICING			
1486	ELEC-7.15.1	Carryout routine maintenance, servicing and testing of 630A to 1000A L.T.ACB by cleaning fixed contacts, moving contacts and arcchutes including servicing and putting the ACB in perfect working condition after detting all relay and ON, OFF mechanism etc done with only manufacturing companies	1	No	6671.00
1487	ELEC-7.15.2	Carryout routine maintenance and servicing of LT.Cubical pannel board having approximately 15 to 22 Nos of switches cleaning with power brower and servicing the contacts, tightning the connection of incoming and outgoing cables, and clicking the operating machanism for smooth functioning of switches and putting them in smooth working condition.	1	No	3184.00
1488	ELEC-7.15.3	Routine maintenance of transformer in operation covering insulation resistance oil, break down strength. Reconditioning / replacement of silicazel, cleaning of transformer and topping upto oil level if required (extra cost will be paid for oil).	1	No	5458.00
1489	ELEC-7.15.4	Testing of Transformer oil for dielectric breakdown strength.	1	No	749.00
1490	ELEC-7.15.5	Testing of Insulation Resistance H.T. / LT copper / aluminium coils for Transformers.	1	No	377.00
	ELEC-7.15.6	Removing the existing transformer from the plinth / Pole and refixing the standby transformer of following capacity including connections etc., complete----- -----			
1491	a	Upto 315 KVA	1	No	5891.00
1492	b	500 / 1000 KVA	1	No	8247.00
	ELEC-7.15.7	Replacing old and unserviceable gasket of			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		top cover plate of transformer having following capacity -----			
1493	a	Upto 315 KVA	1	No	935.00
1494	b	500 / 1000 KVA	1	No	1309.00
	ELEC-7.15.8	Replacing old and unserviceable gasket of bushing for the following Transformer capacity.			
1495	a	Upto 315 KVA H.T.	1	No	377.00
1496	b	Upto 500 / 1000 KVA H.T.	1	No	692.00
1497	c	Upto 315 KVA L.T.	1	No	874.00
1498	d	Upto 500 / 1000 KVA L.T.	1	No	1794.00
	ELEC-7.15.9	Replacement the H.T. / L.T. burntout winding coils of distribution transformer including rewinding, varnishing and vaccuming etc.,duly retaining the removed burnt winding coils by the Contractor / Firm -----			
1499	a	For copper coils	1	Kg	775.00
1500	b	For aluminium coils	1	Kg	508.00
	ELEC-7.15.10	Painting with 2 coats Zinchromate red oxide duly scraping existing paint followed by 2 coats of hammerton grey paint etc., complete.-----			
1501	a	Upto 500 KVA	1	No	3534.00
1502	b	630 / 1000 KVA	1	No	4712.00
	ELEC-7.15.11	Replacing ----- for distribution Transformer by new one.			
1503	a	H.T bushing	1	No	416.00
1504	b	H.T bushing metal parts	1	No	450.00
1505	c	L.T bushingUpto 315 KVA	1	No	196.00
1506	d	L.T bushing for 500 / 1000 KVA	1	No	208.00
1507	e	L.T bushing metal parts 100 KVA	1	No	358.00
1508	f	L.T bushing metal parts 250 / 315 KVA	1	No	589.00
1509	g	L.T bushing metal parts 500 KVA	1	No	1536.00
1510	h	L.T bushing metal parts 1000 KVA	1	No	2356.00
	ELEC-7.15.12	Drying the repaired transformer with appropriate heat / air -----			
1511	a	Upto 315 KVA	1	No	3534.00
1512	b	500 / 1000KVA	1	No	4955.00
	ELEC-7.15.13	Loading and Unloadng of transformer from site to Workshop or vice verse-----			
1513	a	Upto 500 KVA	1	No	5301.00
1514	b	630 / 1000 KVA	1	No	8016.00
	ELEC-7.15.14	Filtration of transformer oil as per ISS specifications filters to die electric strength above 40 KV-----			
1515	a	At site	1	Ltr	12.00
1516	b	At workshop	1	Ltr	8.00
1517	ELEC-7.15.15	Transformer oil tested as per IS-335 - 1972 (per Ltr)	1	Ltr	141.00
		SERVICING OF DBs			
	ELEC-	Servicing of DBs duly opening the top			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	7.15.16	cover checking the circuits, tighting the screws, applying tape wherever required and making propoer dressing etc complete.			
1518	a	4 Way SPN DB	1	No	50.00
1519	b	8 Way SPN DB	1	No	102.00
1520	c	12 Way SPN DB	1	No	152.00
1521	d	4 Way TPN DB	1	No	152.00
1522	e	8 Way TPN DB	1	No	305.00
1523	f	12 Way TPN DB	1	No	458.00
1524	g	4 Way VTPN DB with MCCBs / MCB Circuits	1	No	254.00
1525	h	8 Way VTPN DB with MCCBs / MCB Circuits	1	No	381.00
1526	i	12 Way VTPN DB with MCCBs / MCB Circuits	1	No	508.00
		SERVICING OF HT VCBs			
1527	ELEC-7.15.17	Carryout routine maintenance, servicing and testing of 630A to 3000A HT VCB by cleaning fixed contacts, moving contacts and arcchutes including servicing and putting the VCB in perfect working condition after detting all relay and ON, OFF mechanism etc done with only manufacturing companies / Authorised dealers of respective switch gears	1	No	10395.00
		POWER QUALITY ANALYSIS			
1528	ELEC-7.15.18	Carrying out power quality analysis of the existing load at point of supply/ or as directed with the use of necessary equipment (At 10 points) and recording voltage, current, frequency, KW, KVA, KVAR,PF,THDV, THDI, Load imbalance, preparation and submission of detailed analysis report with remedial measure.	1	day	30030.00
		Note 1: Above job is carriedout irrespective of measuremnts at various electrical panels/ load centers (Upto 10 pts) Note 2: For estimating, one day shall be considered number of hours of one normal working day and it should be actual time required for measurement at site.			
		THERMOGRAPHY			
1529	7.15.19	Service Charges towards Thermography at site with FLIR make E5 thermal Imaging Camera with CRIP Resolution of 10,800-pixel detector and 2% accuracy including all required jobs	1	Job	40425.00
	7.16	TRANSFORMERS			
	ELEC-7.16.1	Supply and Transportation of ----- KVA TRANSFORMER with all test reports. The Transformer shall be designed and manufactured as per IS:1180 OCTC with level - I with initial filling of oil as per IS			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Scheduled Rate
		335-1993. The basic details of the Transformer are as under. Makes: Kirloskar / PETE / Esennar / Voltamp / Crompton / ABB / Schneider / SSE		
		1. Quantity : 1 2. Rated KVA : KVA 3. Service & Location: Continuous Outdoor Distribution Transformer 4. Mounting : Plinth. 5. Wound : Copper Double wound 6. Type : Core type oil immersed 7. Cooling : ONAN 8. Temp Rise : 40°C in oil, 45°C by resistance 9. Vector Group: Dyn 11 10. Primary Connection : Delta 11. Nominal Voltage / Current : _____ 12. Highest system Voltage: 12000V 13. Primary Frequency : 50 HZ +/- 3% 14. Number of Phases : 3 15. Primary wires: 3 16. Secondary connection : Star 17. Secondary Volts / Current : 433V 18. Secondary phases : 3 19. Secondary wires: 4 20. Taps on primary winding for primary voltage variation : +5% to - 10% in steps of 2.5% of 7 position (6 Steps)		
		21. Terminal arrangement. a. HV: HT terminal box as per the site condition. b. LV: Cable box suitable to receive -- -----Sq.mm XLPE cable 22. LV: One separate terminal for earthing. 23. Total Losses at 50% Loading [Watts] [Max] --- as per IS 24. Total Losses at 100% Loading [Watts] [Max]--- as per IS 25. Percentage Impedance at 75 deg. C at ----- as per IS 26. No Load current: Less than 2% of full load current.		
		27. Standrad Fittings & Accessories. a. Rating and terminal marking plate: One b. Lifting Lugs: Two c. Off-circuit tap switch : One d. Earthing Terminals : Two e. Radiators (Attachable): Adequate f. Explosion vent with Diaphragm : One g. Conservator with Drain plug: one h. Oil filling hole with cap : One i. Oil level indicator : One		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		j. Dehydrating Silicagel Breather : One k. Terminal Arrangement: HV With Treminal Box l. Terminal Arrangement : LV Cable Box m. Separate Neutral Bushing : One n. Filter valve with blanking plate : One o. Drain cum filter valve with blanking plate : One p. Air release device : One q. Thermometer Pocket : One r. Four :Unidirectional flat rollers s. One :10Cm dial thermometer(Rigid stem type)			
1530	a	160 KVA Copper Wound Transformer	1	No	822730.00
1531	b	200 KVA Copper Wound Transformer	1	No	897933.00
1532	c	250 KVA Copper Wound Transformer	1	No	925571.00
1533	d	315 KVA Copper Wound Transformer	1	No	1234094.00
1534	e	400 KVA Copper Wound Transformer	1	No	1514337.00
1535	f	500 KVA Copper Wound Transformer	1	No	1592754.00
1536	g	630 KVA Copper Wound Transformer	1	No	1772212.00
1537	h	1000 KVA Copper Wound Transformer	1	No	2130869.00
1538	i	1250 KVA Copper Wound Transformer	1	No	2408850.00
1539	j	1600 KVA Copper Wound Transformer	1	No	3439700.00
1540	k	2000 KVA Copper Wound Transformer	1	No	4322256.00
	ELEC-7.16.2	Supply and Transportation of ----- KVA TRANSFORMER with all test reports. The Transformer shall be designed and manufactured as per IS:1180 OCTC with level - I with initial filling of oil as per IS 335-1993. The basic details of the Transformer are as under. Makes: Thota / Power Tech or equivalent			
		1. Quantity : 1 2. Rated KVA : KVA 3. Service & Location: Continuous Outdoor Distribution Transformer 4. Mounting : Plinth. 5. Wound : Copper Double wound 6. Type : Core type oil immersed 7. Cooling : ONAN 8. Temp Rise : 40°C in oil, 45°C by resistance 9. Vector Group: Dyn 11 10. Primary Connection : Delta 11. Nominal Voltage / Current : _____ 12. Highest system Voltage: 12000V 13. Primary Frequency :50 HZ +/- 3% 14. Number of Phases : 3 15. Primary wires: 3 16. Secondary connection : Star 17. Secondary Volts / Current : 433V 18. Secondary phases : 3 19. Secondary wires: 4			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		20. Taps on primary winding for primary voltage variation : +5% to - 10% in steps of 2.5% of 7 position (6 Steps)			
		21. Terminal arrangement. a.HV: HT terminal box as per the site condition. b. LV: Cable box suitable to receive -----Sq.mm XLPE cable 22. LV:One separate terminal for earthing. 23. Total Losses at 50% Loading [Watts] [Max] --- as per IS 24. Total Losses at 100% Loading [Watts] [Max]--- as per IS 25.Percentage Impedance at 75 deg. C at ----- as per IS 26. No Load current: Less than 2% of full load current.			
		27. Standrad Fittings & Accessories. a. Rating and terminal marking plate: One b. Lifting Lugs:Two c. Off-circuit tap switch :One d. Earthing Terminals :Two e. Radiators (Attachable):Adequate f. Explosion vent with Diaphragm :One g. Conservator with Drain plug:one h. Oil filling hole with cap :One i. Oil level indicator : One j. Dehydrating Silicagel Breather : One k. Terminal Arrangement: HV With Treminal Box l. Terminal Arrangement : LV Cable Box m. Separate Neutral Bushing : One n. Filter valve with blanking plate : One o. Drain cum filter valve with blanking plate : One p. Air release device : One q. Thermometer Pocket : One r. Four :Unidirectional flat rollers s. One :10Cm dial thermometer(Rigid stem type)			
1541	a	100 KVA Copper Wound Transformer	1	No	401634.00
1542	a	160 KVA Copper Wound Transformer	1	No	642758.00
1543	b	200 KVA Copper Wound Transformer	1	No	707034.00
1544	c	250 KVA Copper Wound Transformer	1	No	771309.00
	ELEC-7.16.3	Supply and Transportation of 3 Phase, 50 Hz, Dry type, Indoor type copper wound Transformer designed and manufactured as per IS 2026-1977 and IS 11171-1985, connected delta on primary side and Star on secondary side with additional neutral			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		brought out on load side, 11000V / (433V / 415V) with HV off load tap changing + 5% to -5% in steps of 2.5%, temperature rise by the resistance 90°C complete with test reports with the following standard mountings. Makes: Kirloskar / PETE / Esennar / Voltamp / Crompton / ABB / Schneider / SSE			
		1. Rated KVA : KVA (Cast Resin) 2. Service:Indoor 3. Mounting : Floor. 4. Copper wound : Double. 5. Type of cooling : ANAN. 6. Insulation Class : Class F 7. Temparature rise by resistance : 90°C 8. Vector Group: Dyn 11			
		9. Primary Connection : Delta 10. Primary Volts : 11000 11. Primry Frequency : 50 12.Primary Phases : 3 13. Primary wires: 3 14. Secondary connection : Star 15. Secondary Volts : 433V / 415V 16. Secondary phases : 3 17. Secondary wires: 4 18. Taps on primary winding for primary voltage variation : +5.0% to - 10.0% in steps of 2.5% through links.			
		19. Terminal arrangement.			
		a. HV: Cable end box b. LV : Cable end box			
		20. No load losses (Watts): As per IS specifications			
		21. Load losses (Watts): As per IS specifications			
		22. Impedance(Z%) : As per IS specifications			
		23. Fittings & Accessories. a. Rating and terminal marking plate b. Earthing terminals c. Lifting Lugs d. Winding temporature Indicator e. Seperate neutral bushing f. Uni directional flat rollers.			
1545	a	250 KVA Copper Wound Cast Resin Transformer	1	No	1291944.00
1546	b	315 KVA Copper Wound Cast Resin Transformer	1	No	1633248.00
1547	c	400 KVA Copper Wound Cast Resin Transformer	1	No	2035485.00
1548	d	500 KVA Copper Wound Cast Resin Transformer	1	No	2254151.00
1549	e	630 KVA Copper Wound Cast Resin Transformer	1	No	2587100.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1550	f	750 KVA Copper Wound Cast Resin Transformer	1	No	2863485.00
1551	g	1000 KVA Copper Wound Cast Resin Transformer	1	No	3059526.00
1552	h	1250 KVA Copper Wound Cast Resin Transformer	1	No	3736500.00
1553	i	1600 KVA Copper Wound Cast Resin Transformer	1	No	4600750.00
1554	j	2000 KVA Copper Wound Cast Resin Transformer	1	No	5665443.00
1555	ELEC-7.16.4	Supply, Installation, Testing and Commissioning of OLTC for transformers with RTCC etc., complete.	1	No	691968.00
		NOTE 1 : All Test reports to be submitted			
		NOTE 2. 2% may be added on the above price towards Installation, Testing and Commissioning			
		NOTE 3 : If level 2 transformer is to be supplied then increase the price by 10%			
1556	ELEC-7.16.5	Supply , Fabrication, Transportation and fixing of Box type RS Joist pole made with 2 Nos 175X85 mm (ISMB Modified) or equivalent about 30'-0 length / 9.1 mtrs length poles welded together including excavation of pit, coil earthing, Special T&P, painting of Pole with 1 coat of Red oxide and 2 coats of alluminium paint, CC 1:3:6 upto ground and 1:2:4 for Couping work, 200A AB Switch, HG fuse sets, required angle iron channels, clamps, nuts and bolts, 11KV pin insulators, 2Nos GI pipe earthings as per the IS with brick massonry chamber including labour and transportation charges etc., complete.	1	No	87846.00
1557	ELEC-7.16.6	Supply, Fabrication, Transportation and erection of DP structure made with 2 Nos 175mm x 85mm (ISMB Modified) or equivalent about 30'-0 length / 9.1 mtrs length RS joist pole erection of the same Including excavation of pit in all kinds of soil including breaking stones, concreting with (1:3:6) mixture base plate, coil earthing back filling, 1:2:4 for coupling including red oxide primary painting and two coats of aluminium painting etc., complete as required with following as per CEIG norms.	1	No	153731.00
		a). 400A AB Switch-1No			
		b) HG Fuse sets-1No			
		c). LAS-1set.			
		d) Required Number of 11KV pin and disc insulators.			
		e) Required length of 100X50mm and 75X40 mm ISMC chanell iron including two coats of redoxide and two coats of enamil			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		paint ect for finished item of work.			
		f) 11KV pin insulators and disc insulators.			
		g) AB switch operating pipe with handle and lock and key arrangements.			
		h). "0" SWG or 8.25 mm dia hard drawn bare copper wire including copper binding wire etc., complete as required including connections.			
		i) 40X6mm GI strip for the DP structure earthing.			
		j) 25X6mm copper strip for lightning arrestors earthing.			
		k) 600X600mmX3,15mm thick copperplate earthings as per NEC with brick massonary chambers - 2 Nos			
		l) GI pipe earthing for the Double pole structure with brick massonry chambers as per IS - 2 Nos			
1558	ELEC-7.16.7	Providing independent earthing for Important equipment with 40mm dia 'B' class 2.5m long G.I pipe and 19mm dia 'B' class G.I pipe of 0.3mtr. long connected with reducer providing G.I funnel with mesh enclosed in C.C/ brick massonry chamber of 450m x 450m x 400mm with R.C.C. Slab cover duly providing staggered holes filling with 20Kg Salt and 40Kg Charcoal or 40Kg bentonite powder from the bottom of the pipe giving earth connection from electrode through G.I strip of 40 x 6mm x 200mm length with all accessories and labour charges complete, as per IS specifications 732/1982 (Part II)	1	No	5836.00
		NOTE : Whenever providing full length of electrode is not possible due to the obstruction of water tube / rock, the length of electrode may be reduced and additional earthing may be done to meet earth resistance.			
1559	7.16.8	Providing independent earthing by exacavating a pit to a depth of 2.25Mtr in all soils as per size specified in the data for Sophisticated Electronic equipment with 600mm x 600mm x 3.15mm thick copper plate rigidly fixed to 19mm dia 'B' Class G.I Pipe of 2.5Mtr lengthwith funnel as per National Electric Code and earth connection from electrode GI strip of 40mm x 5mm x 200mm length to be bolted with nut bolts to G.I.pipe including 25mm x 3mm copper strip of 6Mtrs length connected from plate to GI strip including filling with 20Kg Salt and 40Kg Charcoal or 40Kg bentonite powder from the bottom of the pipe and providing CC /	1	No	16670.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Brick massonry chamber 450mmX450mmX400mm and covered with R.C.C. Slab including all accessories and labour charges etc complete as per IS specification 732/1982 (Part II).			
		NOTE: In location where the full length of electrode is not possible due to meeting a water table /rock. The electrode may be reduced length and two earths may be done to meet earth resistance.			
1560	ELEC-7.16.9	Providing transformer plinth 1.2 x 1.2 x 1.5 mtr in size with necessary excavation in ground at the bottom with 150mm thick 1:2:4 cement concrete raft at the bottom and top and 225mm thick wall constructed in stone masonry and remaking hallow portion shall be filled with stone chips duly plastered 20mm thick outsides including watering etc., complete.	1	No	17364.00
1561	ELEC-7.16.10	Providing CTPT plinth 600mm x 600mm x 2.1 mtr in size with necessary excavation in ground at the bottom with 150mm thick 1:2:4 cement concrete raft at the bottom and top duly plastered 20mm thick outsides including watering etc., complete.	1	No	13892.00
1562	ELEC-7.16.11	Providing independent earthing for Important equipment with 100mm dia Heavy gauge C.I (Cast iron) pipe with Flange 2.5m long enclosed in C.C/ brick massonry chamber of 450m x 450m x 400mm with R.C.C. Slab cover duly providing staggered holes filling with salt and charcoal from the bottom of the pipe giving earth connection from electrode through flange with all accessories and labour charges complete, as per IS specifications 732/1982 (Part II)	1	No	9550.00
1563	ELEC-7.16.12	Supply, Transportation, Installation and Commissioning of 11 KV, 630A, 25 KA Outdoor type Load Break Switch as detailed below with suitable CC foundation and 2 Nos GI pipe earthing with brick massonry chambers etc complete for finished item of work. a) Load break switch: 11KV,630A, 25 KA with fuse trip, earth switch, manually operated spring chargesd mechanis with 2 no + 2 NC. b) HT HRC fuse upto 63A - 3 nos. c) Bus bar connection. d) Indication lamps. e) Manual trip Push buttion. Make : Megawin / Pentagon / Venkateshwara / Jyothi.	1	No	146440.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1564	ELEC-7.16.13	Supply, Installation, Testing and commissioning of indoor type floor mounted metal clad VCB panel with 3 Nos VCBs, totally enclosed and fully inter locked horizontal draw out , horizontal isolated type breaker as per IS 13118 Specifications and as amended upto date and additional specifications, having capacities mentioned below, single break, trip free mechanism, motorised operated spring / manually charged and auto/manually closed breaker suitable for use on 11KV, 3 Phase, 50 HZ AC supply with short circuit fault level of 350 / 500 MVA, complete with self contained, fully inter locked rack in and rack out mechanism, air insulated but encapsulated copper bus bars of 630A capacity, breaker featured with mechanical ON/OFF indicator with hand trip device, spring charging motor, 110V DC closing and tripping coil, safety shutter assembly, shunt trip coil and auxilary switch of 4 NO + 4 NC and equipped with the following switchgears and accessories including connections suitable for XLPE 11 KV cable, cable entry from bottom, end termination with heat shrinkable jointing material etc as required including construction of suitable CC works for VCB's etc complete. Makes:Kirloskar / Schneider / Siemens / ABB	1	No	1537305.00
		INCOMER - 1 No			
		Vaccum circuit breaker electrical drawout type TP 11 KV 630 A not less than 16 KA rated short circuit rating current -1No			
		POTENTIAL TRANSFORMER:1 No. 11000 / 110 Volts PT, Class 1 accuracy, 100 VA burden with HT/LT fuses.			
		CURRENT TRANSFORMER: 3 Nos epoxy resin cast CTs of ratio 50 -- 300 A / 5A, 15VA burden and accuracy class 1.0 for metering and class 5P10 for protection			
		METERING			
		1No Digital type Ammeter and selector switch of makes CONZERV/EQVT			
		1 No digital type Voltmeter with 0-15KV range, slector switch for Voltmeter of makes CONZERV/EQVT			
		1No Digital Multifunction meter of makes CONZERV/EQVT			
		Heater ON/OFF switch with space heater and thermostat, single phase switch with socket cubical lamp for panel			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Scheduled Rate
		illumination with door limit switch ,MCB's for AC & DC control.		
		LED indication lamps for breaker on, breaker off, spring charge indication, trip circuit healthy with push button, Auto trip indication meter, Auxilary contact for service test position (4No + 4 NC) service and test positions and R/Y/B indication lamps.		
		PROTECTION: 1 Nos. Microprocessor based IDMTL 3 over current and 1 earth fault relay with Over current, earth fault and short circuit protection.		
		High speed tripping relay		
		ANNUNCIATION: 8 Window annunciation panel with push buttons and hooters.		
		POWER PACK: Supply, Installation, testing and commissioning of Power pack with 230V input and 110V DC continuous output suitable for closing / tripping / indication of 3 Nos VCBs with 2.5sqmm FRLS copper cable etc as required.		
		OUTGOINGS - 2 Nos		
		630A VCBs draw out type TP 11 KV 630 A not less than 16 KA rated short circuit rating current.		
		Each breaker shall consist the following.		
		CURRENT TRANSFORMER: Epoxy resin cast CTs of ratio 50 -- 300 A / 5A, 15VA burden and accuracy class 1.0 for metering and class 5P10 for protection - 3 Nos		
		Digital type Ammeter and selector switch - 1 No Makes : CONZERV / EQVT		
		Digital Multifunction meter - 1 No Makes: CONZERV / EQVT		
		PROTECTION : Microprocessor based IDMTL 3 over current and 1 earth fault relay with Over current, earth fault and short circuit protection - 1 No		
		High speed tripping relay		
		Auxiliary relay for bucholz A/T,OTI A/T, WTI A/T		
		Heater ON/OFF switch with space heater and thermostat, single phase switch with socket cubical lamp for panel illumination with door limit switch ,MCB's for AC & DC control.		
		INDICATION LAMPS: LED indication lamps for breaker on, breaker off, spring charge indication, trip circuit healthy with push button, Auto trip indication meter, Auxilary contact for service test position (4No+ 4 NC) service and test positions and R/Y/B indication lamps.		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		ANNUNCIATION: 8 Window annunciation panel with push buttons and hooters.			
		1 No. rear entry cable box suitable to receive 11 KV, 1 run of 3CX 120 sqmm cable(XLPE) .			
		1 set of misc items like control fuses , control wiring , inter connections, nuts, bolts, bus trunking including all connected accessories etc.			
		1 Set of 11 KV, 630A, 350 / 500 MVA alluminium Bus Bar.			
		Note : If out going breaker quantity is increased, Rs.3.75 Lakhs per each breaker to be added to the above.			
1565	ELEC-7.16.14	Supply,transpotation,installation,testing and commissioning of HT INDOOR type single panel switchgear with VCB of floor mounted, metal clad 11KV, 630A, not less than 16 KA (350 / 500 MVA) VCB Panel, with 1No VCBs totally enclosed and horizontal drawout type, horizontal isolation type breaker as per IS 13118 as amended upto date and additional specifications having capacities as mentioned below , single break trip free mechanism, motorised/manually charged and auto manually closing breaker suitable for use on 12KV,3phase,50HZ AC supply with self contained fully interlocked rackin and rackout mechanism air insulated alluminium Busbars of 630A capacity, Breaker featured with ON/OFF indicator with hand trip device, spring relief coil, shunt trip coil and auxillary switch of 6NO + 6NC and equiped with following switchgears and accessories incomming connections suitable for 3x95Sqmm XLPE 11KV Cable as required etc complete with adaptor box for outgoing termination. Makes: Kirloskar / Schneider / Siemens / Crompton Greaves / ABB	1	No	585640.00
		INCOMING : 11KV, 630A,not less than --- -- KA VCB - 1No.			
		POTENTIAL TRANSFORMER : 11000 / 110 Volts PT, Class 1 accuracy, 100 VA burden with HT/LT fuses. Makes: ECS / SILKANS / PRAGATHI / NARAYAN POWER TECH or EQVT - 1 No			
		Digital Voltmeter 0-15KV along with Selector switch and protection fuses/MCB for HT metering upto 15KV on incoming side -1No Makes: CONZERV / ELMEASURE or EQVT			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Dual core dual ratio Current transformers with 50 -- 300 A / 5 amp, 15VA burden and accuracy class 1 for metering & class 5P10 for protection of makes ECS / SILKANS / PRAGATHI / NARAYAN POWER TECH -3Nos			
		0-300A Digital Type Ammeter with selector switch -1No Makes : CONZERV / ELMEASURE or EQVT			
		Microprocessor based non directional combined 2 over current & one earth fault relay -1No Makes: EASUN REYROLLE or equivalent			
		POWER PACK: Supply, Installation, testing and commissioning of Power pack with 230V input and 110V DC continuous output suitable for closing / tripping / indication of VCB with 2.5sqmm FRLS copper cable etc as required.			
		Master trip relay-1No Makes: EASUN REYROLLE or equivalent (Makes)			
		Three element transformer fault auxiliary relay - 2 Nos Makes: EASUN REYROLLE or equivalent			
		Breaker control switch-1No Makes: Switron or equivalent			
		Local / Remote switch-1No Makes: Switron or equivalent			
		Indicating lamps-1set Makes: Vaishnov or equivalent Reputed brand			
		Space heater & thermostat -2Nos Makes: Eltek or equivalent			
		MCB's of suitable current rating - 3 Nos			
		Anti pumping relay -1No Makes: Reputed brand with ISI mark			
		Electronic Audio alarm system with hooter -1No Makes : Reputed brand			
		Auxiliary plug & socket of 230VAC/10A - 1No Makes: Reputed brand with ISI mark			
		Panel illumination lamp 230V/40W -1No Makes: Reputed brand with ISI mark			
1566	ELEC-7.16.15	Supply,transpotation,installation,testing and commissioning of HT OUTDOOR type single panel switchgear with VCB of floor mounted, metal clad 11KV, 630A, not less than 16 -KA (350 / 500 MVA) VCB Panel, with 1No VCBs totally enclosed and horizontal drawout type, horizontal isolation type breaker as per IS 13118 as amended upto date and additional specifications having capacities as mentioned below , single break trip free	1	No	658845.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Scheduled Rate
		mechanism, motorised/manually charged and auto manually closing breaker suitable for use on 12KV , 3phase, 50HZ AC supply with self contained fully interlocked rackin and rackout mechanism air insulated alluminium Busbars of 630A capacity, Breaker featured with ON/OFF indicator with hand trip device, spring relief coil, shunt trip coil and auxillary switch of 6NO + 6NC and equiped with following switchgears and accessories incomming connections suitable for 3x95Sqmm XLPE 11KV Cable as required etc complete with adaptor box for outgoing termination. Makes: Kirloskar / Schneider / Siemens / Crompton Greaves / ABB		
		INCOMING- 11KV, 630A,not less than 16 KA VCB - 1No.		
		POTENTIAL TRANSFORMER : 11000 / 110 Volts PT, Class 1 accuracy, 100 VA burden with HT/LT fuses. Makes: ECS / SILKANS / PRAGATHI / NARAYAN POWER TECH or EQVT - 1 No		
		Digital Voltmeter 0-15KV along with Selector switch and protection fuses/MCB for HT metering upto 15KV on incoming side - 1No Makes: CONZERV / ELMEASURE or EQVT		
		Dual core dual ratio Current transformers with 50 -- 300 A / 5 amp, 15VA burden and accuracy class 1 for metering & class 5P10 for protection - 3 Nos Makes : ECS / SILKANS / PRAGATHI / NARAYAN POWER TECH		
		0-300A Digital Type Ammeter with selector switch - 1No Makes : CONZERV / ELMEASURE or EQVT		
		Microprocessor based non directional combined 2 over current & one earth fault relay - 1No Makes: EASUN REYROLLE or equivalent		
		POWER PACK: Supply, Installation, testing and commissioning of Power pack with 230V input and 110V DC continuous out put suitable for closing / tripping / indication of VCB with 2.5sqmm FRLS copper cable etc as required.		
		Master trip relay-1No Makes: EASUN REYROLLE or equivalent (Makes)		
		Three element transformer fault auxilary relay - 2 Nos Makes: EASUN REYROLLE or equivalent		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Breaker control switch-1No Makes: Switron or equivalent			
		Local/Remote switch-1No Makes: Switron or equivalent			
		Indicating lamps-1set Makes: Vaishnov or equivalent Reputed brand			
		Space heater & thermostat -2Nos Makes: Eltek or equivalent			
		MCB's of suitable current rating- - 3 Nos			
		Anti pumping relay -1No Makes: Reputed brand with ISI mark			
		Electronic Audio alarm system with hooter -1No Makes : Reputed brand			
		Auxiliary plug & socket of 230VAC/10A - 1No Makes: Reputed brand with ISI mark			
		Panel illumination lamp 230V/40W -1No Makes: Reputed brand with ISI mark			
	7.17	L.T. LINE MATERIALS AND LIGHTENING PROTECTION SYSTEM			
1567	ELEC-7.17.1	Supply and erecting approved make 11KV, 5KA metal oxide lightning arrestors suitable for 11 KV supply with necessary materials on existing cross arm.	1	No	2148.00
	ELEC-7.17.2	Supply and erecting porcelain ----- ---- insulator suitable for 11KV line with suitable hardware on existing cross arms.			
1568	a	Disc type	1	No	673.00
1569	b	Pin type	1	No	343.00
1570	c	Post type	1	No	761.00
1571	ELEC-7.17.3	Supply and erecting porcelain pin/shackle type insulator suitable for L. T.	1	No	123.00
1572	ELEC-7.17.4	Supply and erection of approved make 11 KV outdoor type gang operated Air Break switch of 200 A capacity with 3 post pin type insulator per phase, mounted in Horizontal / Vertical position with necessary channels on cross arms with adequate length of 'C' class GI pipe for operating handle provided with Lock & Key at suitable height from ground level with necessary clamps.	1	No	8840.00
1573	ELEC-7.17.5	Supply and erection of approved make 11 KV outdoor type gang operated Air Break switch of 400 A capacity with 3 post pin type insulator per phase, mounted in Horizontal / Vertical position with necessary channels on cross arms with adequate length of 'C' class GI pipe for operating handle provided with Lock & Key at suitable height from ground level with necessary clamps.	1	No	10448.00
1574	ELEC-7.17.6	Supply and erection of approved make	1	No	5787.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		11KV, H.G fuse set with insulation complete with Fuse holders, Fuse barrel with metal fittings, fuse element mounted on M.S. channel with working current 15A capacity complete with cost and conveyance of all materials.			
1575	ELEC-7.17.7	Supply and erection of approved make 33 KV, H.G fuse set with insulation complete with Fuse holders, Fuse barrel with metal fittings, fuse element mounted on M.S. channel with working current 15A capacity complete with cost and conveyance of all materials.	1	No	5787.00
1576	ELEC-7.17.8	Supply of 7/3.15 AAA C all Alluminium annealed conductor Rabbit. Make : Pawancab or its equivalent	1	Km	39377.00
1577	ELEC-7.17.9	Supply of 7/2.50 AAA C all Alluminium annealed conductor Weasel. Make : Pawancab or its equivalent	1	Km	24108.00
1578	ELEC-7.17.10	Supply of 9.1 Mtr PSCC Pole 280 Kg Working load.	1	No	5626.00
1579	ELEC-7.17.11	Supply of 8.0 Mtr PSCC Pole 140 Kg Working load.	1	No	3053.00
1580	ELEC-7.17.12	Supply of 175 x 85 mm / 150 x 75 mm RS Joist.	1	Kg	106.00
		AB CABLES			
	ELEC-7.17.13	Supply and stringing of LT Single / Three phase 3 / 4 Wire Aerial Bunched stranded alluminium conductor XLPE/HDPE insulated conductor twisted over bare all alluminium alloy messenger wire of 1100 V confirming to IS: 14255/1995. Make : Pawancab / Havells / KEI			
1581	a	2X16+1x25	1	Mtr	147.00
1582	b	3X16+1x25	1	Mtr	190.00
1583	c	2X25+1x25	1	Mtr	210.00
1584	d	3X25+1x25	1	Mtr	264.00
1585	e	3X35+1x25	1	Mtr	357.00
1586	f	3X50+1x35	1	Mtr	494.00
1587	g	3X70+1x50	1	Mtr	662.00
1588	h	3X95+1x70	1	Mtr	914.00
		LIGHTNING PROTECTION			
1589	ELEC-7.17.14	Supply and installation of advanced lighting protection with 205 -580mm height and 4.60 - 4.940 kgs, and having Rod length 760mm, weight 1.795 kgs with stainless steel rod, working on the principle of (ESE) Early Streamer Emission technology, having a coverage radius of 79 Mts under level 1 protection and 107 Mtrs radius under level 4 protection when mounted on 5 - 15 mts height of existing lattice tower giving level 1 protection and anticipation emission time of 60 - 72 micro seconds. The ESE should be	1	No	137655.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		manufactured according to standard NFC 17-102 : 2011 and CE certified including functional integrity etc Complete. Make : EARTHPLUS (THUNDER GUARD) / NIMBUS / KALRE / FOREND./Equivalent approved make.			
1590	ELEC-7.17.15	Installation and commissioning of advanced lighting protection systems which includes 1. 50mm dia C class GI mast with base plate of length 5.0 Mtrs with FRP collar (Insulating bush). 2. Laying of CC Bed 3. Installation of Lighting Rod 4. Laying of Down conductor 5. Installation of Counter 6. Installation of Earth Electrodes 7. Interconnection between the Electrodes 8. Specialised supporting guy wire and all fitting accessories. 9. Termination of down conductor to earth bus etc complete	1	No	35259.00
1591	ELEC-7.17.16	Supply of electro-Mechanical counter Makes: EARTHPLUS (THUNDER GUARD) / NIMBUS / KALRE / FOREND.	1	Pt	18113.00
1592	ELEC-7.17.17	Providing earth electrode of low carbon steel rod, UL listed of 25 mm dia, 3 Mtr long, coated with copper of 254 microns thickness, CPRI tested for short time current withstand test of 25 kA, coating thickness, environmental test (Salt Mist Test), Bend test, Tensile strength, Yield / tensile ratio, Electrical Resistivity test, complete with clamps and 2 bags of Earthplus ULTRA high grade earthing compound IEC 62561-7 complaint Eco-friendly, Maintenance free, anti corrosive, lead-free, super conductive, mineral based high-grade earthing compound, to enhance soil conductivity. With resistance <0.20 ohms-meter, should be leach proof & sulphur free complete with earth inspection chamber of dimensions : Width : 320 mm x 320 mm, Height : 192 mm, Weight : 30 Kgs, Load bearing capacity : 5000 Kgs including drilling of bore in any kind of soil.	1	Pt	19700.00
		SECTION - 8			
	8.1	NET WORKING			
	ELEC-8.1.1	Supply of ----- telephone copper cable. Makes : Finolex / Delton / Surabi / Polycab			
1593	a	2 Pair, 0.5mm	100	Mtrs	1099.00
1594	b	5 Pair	100	Mtrs	3067.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1595	c	10 Pair	1	Mtr	43.00
1596	d	20 Pair	1	Mtr	85.00
1597	e	50 Pair	1	Mtr	211.00
1598	f	100 Pair	1	Mtr	423.00
	ELEC-8.1.2	Supply of ----- Telephone distribution box with back mount frame, krone connector, powder coated metal body with lock and key arrangement.			
1599	a	10 pair	1	No	772.00
1600	b	20 pair	1	No	1172.00
1601	c	50 pair	1	No	2464.00
1602	d	100 pair	1	No	4393.00
1603	e	200 pair	1	No	8453.00
	ELEC-8.1.3	Supply of LAN Cable cat - Makes : D Link / AMP / Molex / Legrand / Krone.			
1604	a	6 UTP cable.	100	Mtrs	2657.00
1605	b	6 STP cable.	100	Mtrs	4600.00
	ELEC-8.1.4	Supply of Cat 6 RJ-45 information outlets including ----- plate. Makes : D Link / AMP / Molex / Legrand / Krone.			
1606	a	Duel face plate.	1	No	369.00
1607	b	Single face plate.	1	No	278.00
	ELEC-8.1.5	Supply of ----- 10 / 100 / 1000 Gigabit Ethernet switches Makes : Digisol / TP Link / D link.			
1	a	24 Port	1	No	8750.00
2	b	16 Port	1	No	5000.00
1608	ELEC-8.1.6	Supply of Ceiling Mount WiFi Access Point. Makes : Digisol / TP Link / D link.	1	No	8935.00
	ELEC-8.1.7	Supply of ----- length moulded patch cord. Makes : Digisol / TP Link / D link. / Legrand			
1609	a	7 feet	1	No	195.00
1610	b	3 feet	1	No	176.00
1611	ELEC-8.1.8	Supply of unloaded 24 port patch panel with IO separate Makes : Digisol / TP Link / D link. / Legrand	1	No	6670.00
	ELEC-8.1.9	HDMI & VGA CABLES			
1612	a	Supply and errecting VGA cable to be laid in provided conduits and terminating as per specifications having 15mtr cord length with male/ female VGA connectors as per requirement complete.	1	No	3140.00
1613	b	Supply and installing HDMI cable low voltage grade as per standard specifications having 3 mtr cord length with male and female 19 pin HDMI connectors as per requirement at site.	1	No	1449.00
1614	c	Supply and installing HDMI cable low voltage grade as per standard	1	No	2536.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		specifications having 5 mtr cord length with male and female 19 pin HDMI connectors as per requirement at site.			
1615	d	Supply and installing HDMI cable low voltage grade as per standard specifications having 10 mtr cord length with male and female 19 pin HDMI connectors as per requirement at site.	1	No	5072.00
1616	e	Supply and installing HDMI cable low voltage grade as per standard specifications having 15 mtr cord length with male and female 19 pin HDMI connectors as per requirement at site.	1	No	6400.00
1617	f	Supply and installing HDMI cable low voltage grade as per standard specifications having 20 mtr cord length with male and female 19 pin HDMI connectors as per requirement at site.	1	No	7970.00
1618	g	Supply and installing HDMI cable low voltage grade as per standard specifications having 25 mtr cord length with male and female 19 pin HDMI connectors as per requirement at site.	1	No	11834.00
1619	h	Supply and installing Audio Video cable low voltage grade as per standard specifications having 15 mtr cord length with required connectors 3RCA X 3RCA cable complete.	1	No	7004.00
1620	i	Supply ,installation, testing and commissioning of DVI to high speed category 2 HDMI convertors supporting full HD 1080p, 2K and 4K vedio up to 30ft lengths, 3D having 24K gold plated 19 pin type A connectors with high flex CL3 - rated jacket. The convertor should be ROHS complaint.Audio Video cable low voltage grade as per standard specifications having 15 mtr cord length with required connectors 3RCA X 3RCA cable complete.	1	No	9056.00
		RACKS - WALL MOUNT			
	ELEC-8.1.10	Supply and installation of wall mounting net work rack with power spike including all accessories.			
1621	a	6U Wall	1	No	6707.00
1622	b	9U wall	1	No	7985.00
1623	c	12U wall	1	No	9263.00
1624	d	15U wall	1	No	10540.00
		RACKS - FLOOR STAND			
	ELEC-8.1.11	Supply and installation of IP 20, IK 08 ----- 600mm Width x 800mm Deep Floor mounting net work rack with all accessories like front and rear doors, fans, castors, cable manager, shelf, power distribution unit, hardware packet. Mod cap floor stand : Modular			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		construction of the rack made of 4 vertical , 4 Horizontal and 4 depth alloy extruded multi folded hallow profiles bolted and joined together with links and corner blocks. 3 Pairs of support channels to equate the load evenly and castor provision at bottom side. Painting shade : Combination of RAL 7035 / 7037 fine texture - 60 to 80 microns. or RAL 9005 fine texture - 60 to 80 microns complies with standards : UL 2416, Din 41494, IEC EN 60529, IEC EN 62262, IEC EN 60068-2-11, ISO 9001-2008. Makes : HCL / VAL / Rittal / APW.			
1625	a	17U floor	1	No	38254.00
1626	b	24U floor	1	No	46948.00
1627	c	27U floor	1	No	52164.00
1628	d	32U floor	1	No	62597.00
1629	e	36U floor	1	No	69552.00
1630	f	42U floor	1	No	76507.00
	ELEC-8.1.12	Supply of ----- (Indoor / Out door), Single mode armourd, Optic fibre cable. Makes : Digisol / TP Link / D link. / Legrand			
1631	a	6 Core	1	Mtr	90.00
1632	b	12 Core	1	Mtr	109.00
		24 Core	1	Mtr	169.00
	ELEC-8.1.13	Supply of ----- fibre distribution unit. (FDU / LIU) loaded with couplers etc complete. Makes : D Link / AMP / Molex / Legrand / Krone.			
1633	a	6 port	1	No	8090.00
1634	b	12 port	1	No	10264.00
1635	ELEC-8.1.14	Supply of Subscriber connector (SC) to SC / LC patch card of 1 Mtr length. Makes : D Link / AMP / Molex / Legrand / Krone.	1	No	2174.00
1636	ELEC-8.1.15	Supply of single mode SC / LC to SC / LC patch card of 1 Mtr length. Makes : D Link / AMP / Molex / Legrand / Krone.	1	No	2415.00
1637	ELEC-8.1.16	Supply of single mode SC / LC to SC / LC patch card of 2 Mtr length. Makes : D Link / AMP / Molex / Legrand / Krone.	1	No	3019.00
1638	ELEC-8.1.17	Supply of Pigtaills for fibre core connectivity. Makes : D Link / AMP / Molex / Legrand / Krone.	1	No	145.00
	8.2	RACEWAYS AND JUNCTION BOXES			
	ELEC-8.2.1	Supply of ----- G I Raceways of 2mm thick with top cover and required hard ware etc complete. Makes : Legrand / MK / OBO or equivalent			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		as approved by the department			
1639	a	100mm x 38mm	1	Mtr	626.00
1640	b	150mm x 38mm	1	Mtr	828.00
1641	c	300mm x 38mm	1	Mtr	1419.00
1642	d	100mm x 25mm	1	Mtr	598.00
1643	e	150mm x 25mm	1	Mtr	766.00
1644	f	300mm x 25mm	1	Mtr	1377.00
	ELEC-8.2.2	Supply of G.I. Junction box of 2mm thick for direct acces to cables at the inter section of Raceways.			
1645	a	172mm x 52mm	1	No	473.00
1646	b	222mm x 52mm	1	No	592.00
1647	c	372mm x 52mm	1	No	1141.00
		EPABX SYSTEM			
	8.3	SMALL SYSTEM			
1648	ELEC-8.3.1	IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt 8 Channel Auto Attendant > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 6 Digital Extensions > 32 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or more Approved Brands: NEC/ Alcatel/ Karel/ Unify	1	No	100271.00
1649	ELEC-8.3.2	IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt 8 Channel Auto Attendant > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 6 Digital Extensions > 48 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or	1	No	110118.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		more Approved Brands: NEC/ Alcatel/ Karel/ Unify			
1650	ELEC-8.3.3	IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt 8 Channel Auto Attendant > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 1 ISDN PRI Module > 6 Digital Extensions > 48 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or more Approved Brands: NEC/ Alcatel/ Karel/ Unify	1	No	122245.00
1651	ELEC-8.3.4	IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt 8 Channel Auto Attendant > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 6 Digital Extensions > 64 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or more Approved Brands: NEC/ Alcatel/ Karel/ Unify	1	No	126126.00
1652	ELEC-8.3.5	IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S)	1	No	138133.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		> Must support Voice Mail > Must support Card based GSM > Inbuilt 8 Channel Auto Attendant > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 1 ISDN PRI Module > 6 Digital Extensions > 64 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or more Approved Brands: NEC/ Alcatel / Karel / Unify			
1653	ELEC-8.3.6	Analog Extension Card (with Caller ID) 8 extensions.	1	No	16858.00
1654	ELEC-8.3.7	Analog Extension Card (with Caller ID) 16 extensions.	1	No	21951.00
1655	ELEC-8.3.8	Analog Trunk Card (with Caller ID) 4 trunks.	1	No	18677.00
1656	ELEC-8.3.9	Analog Trunk Card (with Caller ID) 8 trunks.	1	No	23285.00
1657	ELEC-8.3.10	Digital Extension Card for 8 digital extensions:	1	No	21709.00
1658	ELEC-8.3.11	Digital Extension Card for 16 digital extensions:	1	No	36383.00
1659	ELEC-8.3.12	E1 Trunk Card or PRI Card 30 ISDN PRI or R2 trunk channels.	1	No	54574.00
	8.4	LARGE SYSTEM			
1660	ELEC-8.4.1	Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications: > IP @ Core, PCM/TDM switching, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt Call Details Software with search engine software > 8 Analog Trunks > 8 Digital Extensions > 96 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 220 Ports wired or more at extra cost Approved Brands: NEC/ Alcatel/ Karel/ Unify	1	No	275658.00
1661	ELEC-8.4.2	Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications: > IP @ Core, PCM/TDM switching, Non	1	No	418035.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt Call Details Software with search engine software > 8 Analog Trunks > 1 PRI Trunk module > 8 Digital Extensions > 128 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 220 Ports wired or more at extra cost Approved Brands: NEC/ Alcatel/ Karel/ Unify			
1662	ELEC-8.4.3	Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications: > IP @ Core, PCM/TDM switching, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt Call Details Software with search engine software > 8 Analog Trunks > 1 PRI Trunk module > 8 Digital Extensions > 160 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Inbuilt hotstandby for CPU and PSU. > Compatibility to run on DC -48v source. > Expandable to 220 Ports wired or more at extra cost Approved Brands: NEC/ Alcatel/ Karel/ Unify	1	No	502685.00
1663	ELEC-8.4.4	Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications: > IP @ Core, PCM/TDM switching, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt Call Details Software with search	1	No	699939.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		engine software > 8 Analog Trunks > 1 PRI Trunk module > 16 Digital Extensions > 224 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Inbuilt hotstandby for CPU and PSU. > Compatibility to run on DC -48v source. > Expandable to 400 Ports wired or more at extra cost Approved Brands: NEC/ Alcatel/ Karel/ Unify			
1664	ELEC-8.4.5	Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications: > IP @ Core, PCM/TDM switching, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt Call Details Software with search engine software > 8 Analog Trunks > 1 PRI Trunk module > 16 Digital Extensions > 304 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Inbuilt hotstandby for CPU and PSU. > Compatibility to run on DC -48v source. > Expandable to 400 Ports wired or more at extra cost Approved Brands: NEC/ Alcatel/ Karel/ Unify	1	No	811330.00
1665	ELEC-8.4.6	Analog Extension Card (with Caller ID) 16 extensions.	1	No	24134.00
1666	ELEC-8.4.7	Analog Trunk Card (with Caller ID) 8 trunks.	1	No	24134.00
1667	ELEC-8.4.8	Digital Extension Card for 8 digital extensions:	1	No	24134.00
1668	ELEC-8.4.9	Digital Extension Card for 16 digital extensions:	1	No	39657.00
1669	ELEC-8.4.10	E1 Trunk Card or PRI Card 30 ISDN PRI or R2 trunk channels.	1	No	59546.00
1670	ELEC-8.4.11	IP CPU card for redundancy purpose	1	No	43417.00
1671	ELEC-8.4.12	PSU card for redundancy purpose	1	No	26439.00
1672	ELEC-8.4.13	Digital Key Telephone with 2 line display, 10 programmable keys, handsfree dialing.	1	No	10187.00
1673	ELEC-8.4.14	Digital Key Telephone with 2 line display, 16 programmable keys, fully handsfree talk back.	1	No	17828.00
1674	ELEC-8.4.15	IP Gateway card for 8 channels	1	No	50329.00
1675	ELEC-8.4.16	IP Gateway card for 16 channels	1	No	72765.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1676	ELEC-8.4.17	SIP extensions licenses pack (5 SIP extensions)	1	No	5155.00
1677	ELEC-8.4.18	SIP extensions licenses pack (10 SIP extensions)	1	No	9035.00
1678	ELEC-8.4.19	IP phone with POE.	1	No	20374.00
1679	ELEC-8.4.20	4 port GSM card	1	No	53119.00
1680	ELEC-8.4.21	Expansion cabinet for 220 more extensions	1	No	100659.00
		SECTION - 9			
	9.1	MISSILLANEOUS ITEMS			
1681	ELEC-9.1.1	TW Seperators / Gutties	100	No	256.00
1682	ELEC-9.1.2	Rawl Plugs	100	No	45.00
1683	ELEC-9.1.3	PVC Grips	100	No	44.00
1684	ELEC-9.1.4	U Nails	100	No	44.00
1685	ELEC-9.1.5	Alluminium Link Clips	144	No	44.00
1686	ELEC-9.1.6	50 mm G.I.Nut and Bolts.	1	Set	22.00
1687	ELEC-9.1.7	63 to 100 mm G.I.Nut and Bolts.	1	Set	34.00
1688	ELEC-9.1.8	50 mm 0 Gauge Nails	1	Doz	61.00
1689	ELEC-9.1.9	63 to 100 mm 0 Gauge Nails	1	Doz	102.00
1690	ELEC-9.1.10	Hard Coke	1	Kg	27.00
1691	ELEC-9.1.11	Salt	1	Kg	22.00
1692	ELEC-9.1.12	PVC Cleats 2 Way	100	No	455.00
1693	ELEC-9.1.13	PVC Cleats 4 Way	100	No	609.00
1694	ELEC-9.1.14	Binding Wire	1	Kg	85.00
1695	ELEC-9.1.15	PVC / Cotton Insulation tape Role (10 Mtrs)	1	No	26.00
1696	ELEC-9.1.16	C.I.Knob	1	No	34.00
1697	ELEC-9.1.17	Stay tight set (Jum bracket 300 mm)	1	Pair	416.00
1698	ELEC-9.1.18	Stay clamp with bolts and Nuts)	1	Set	274.00
1699	ELEC-9.1.19	L.T.Guy insulator	1	No	106.00
1700	ELEC-9.1.20	12 / 15 MS plain rod fan hook	1	No	44.00
1701	ELEC-9.1.21	19 / 20 mm Steel tube fan down rod	1	Mtr	116.00
1702	ELEC-9.1.22	Consealed box PVC / MS with hook for fan	1	No	138.00
1703	ELEC-9.1.23	Supply and fixing of Anchor fastner with fan hook / Providing MS Fan hook with grouting and cement plastering.	1	No	112.00
1704	ELEC-9.1.24	Coil Earthing	1	No	104.00
1705	ELEC-9.1.25	Cable route Indicators of size 152mm round / 102mm x 102mm / 152mm x 152mm	1	No	124.00
1706	ELEC-9.1.26	40 mm x 40 mm x 6 mm angle iron with I bolt.	1	Set	348.00
1707	ELEC-9.1.27	Mild Steel Items	1	Kg	85.00
1708	ELEC-9.1.28	Acrylic Cover of size 4" x 7" for night lamps.	1	No	27.00
1709	ELEC-9.1.29	TW / PVC Round Blocks	1	No	9.00
1710	ELEC-9.1.30	G.I.Funnel with Mesh 1/2" x 4"	1	No	113.00
1711	ELEC-9.1.31	Asbestos Sheet	1	Sqft	34.00
1712	ELEC-9.1.32	First Aid box 18" x 12" x 8"	1	No	1512.00
1713	ELEC-9.1.33	11 KV/22 KV Hand gloves	1	No	284.00
	9.2	LEGEND PLATES			
	ELEC-9.2.1	Danger Notice Plates of size -----, shall comply with IS:2551-1982.			
1714	a	250x200mm,	1	No	286.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1715	b	200x150mm,	1	No	255.00
1716	c	150x100mm,	1	No	127.00
1717	ELEC-9.2.2	Bus bar chamber 100mm x 40mm	1	No	61.00
1718	ELEC-9.2.3	Cable Alley 100mm x 40mm	1	No	61.00
1719	ELEC-9.2.4	Earth 40mm x 20mm	1	No	61.00
1720	ELEC-9.2.5	Auto / Manuual	1	No	61.00
1721	ELEC-9.2.6	Semi ovel type alluminium anodized legend plates ON / OFF / Forward / Reverse / Start / Stop / UP / DOWN / R Phase / Y Phase / B Phase / Trip / Open / Close / Left / Right / Motor on / Motor off / Accept / Retract / Reset / Emergency / Running / Pump off / Emergency Stop / Emergnecy on / Slow.	1	No	30.00
1722	ELEC-9.2.7	Shock instrution chart in English / Hindi / Telugu duly framed with front glass.	1	No	576.00
	ELEC-9.2.8	Supply of 1.0 Sqmm FRLS / HFFR PVC insulated 1100V grade as per IS:694/1990 specification for Copper cable.			
1723	a	Makes : Finolex / RR kabel / Havells / APAR EBXL / KEI / L&T / V-Guard.	100	Mtr	1343.00
1724	b	Makes : Polycab / HPL / RPG / Kundancab / Nakoda / Anchor / GM / Million / Gold Medal / Power Flex / Fine Cab / Sun Cab / Fortune Arrt / Bonton / Gloster / Gemini / Uniflex / Sudhakar / Nandicab.	100	Mtr	1182.00
1725	c	Makes : Benlo / Khanthi / Vimal / Stanjo / Airson / Rajnigandha / Orbit	100	Mtr	1023.00
	9.3	COPPER / ALLUMINIUM / G.I. ITEMS (PER KG)			
1726	ELEC-9.3.1	Copper Plate / Strip / SWG wire No.8 / 10 / 14	1	Kg	1044.00
1727	ELEC-9.3.2	Copper winding wire	1	Kg	1203.00
1728	ELEC-9.3.3	Copper winding wire with PVC Insulated of fine quality	1	Kg	1238.00
1729	ELEC-9.3.4	Alluminum Bus bars / Strips / Accessories	1	Kg	406.00
1730	ELEC-9.3.5	Alluminum winding wire	1	Kg	531.00
1731	ELEC-9.3.6	G.I. Strip / Plate / Wire	1	Kg	98.00
	9.4	DMC/ SMC TYPE SUPPORTS FOR THE BUSBARS			
	ELEC-9.4.1	Supply of SMC type supports for the bus bars-----			
1732	a	50 x 70 x 14 mm	1	No	37.00
1733	b	60 x 70 x 14 mm	1	No	43.00
1734	c	70 x 70 x 14 mm	1	No	79.00
1735	d	300 x 50 x 10 mm	1	No	146.00
1736	e	350 x 52 x 10 mm	1	No	194.00
1737	f	420 x 60 x 12 mm	1	No	279.00
1738	ELEC-9.4.2	DMC Earth Flat Supports 20 x3 mm / 20x 6mm / 25 x 6mm / 25 x 3mm / 32 x 3 mm / 32 x 6mm / 40 x 3 mm / 40 x 6mm	1	No	61.00
1739	ELEC-9.4.3	Heat shrinkable sleeves for the Bus bars up to 70 Sqmm	1	Mtr	19.00
1740	ELEC-9.4.4	Heat shrinkable sleeves for the Bus bars above 70 Sqmm	1	Mtr	30.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1741	ELEC-9.4.5	3 to 6.2 Volt series bulb LEDs/Normal bulbs	1000	Nos	1213.00
1742	ELEC-9.4.6	3 to 6.2 Volt series bulb with navar plate LEDs/normal bulbs.	1000	Nos	1577.00
1743	ELEC-9.4.7	Supply of Rotating machine	1	No	1455.00
1744	ELEC-9.4.8	Supply of 6mm thick MS Chekered plate.	1	Kg	97.00
1745	ELEC-9.4.9	Supply of fixing of 6mm thick Alluminium Chekered plate.	1	Kg	334.00
1746	ELEC-9.4.11	Cement	1	Kg	9.00
1747	ELEC-9.4.12	Cost of Sand	1	Cum	728.00
1748	ELEC-9.4.13	Cost of Bricks	1000	Nos	4851.00
1749	ELEC-9.4.14	Hylam Sheet	1	Sq.in	1.00
1750	ELEC-9.4.16	80mm Nominal Bore C.I.Earth Pipe of 3 Mtrs Length	1	No	4123.00
1751	ELEC-9.4.17	Earth work excacvation including all soils for trench	1	Cum	303.00
1752	ELEC-9.4.18	Earth work excacvation for all soils for Pole Pit for 3 to 6 Mtrs Pole	1	No	970.00
1753	ELEC-9.4.19	Earth work excacvation for all soils for Pole Pit for 7 to 11 Mtrs Pole	1	No	1455.00
1754	ELEC-9.4.20	Drilling of 16 Nos through holes of 12mm dia to G.I pipe	1	No	7.00
1755	ELEC-9.4.21	G.I Nuts, Bolts and Washers each set	1	Set	15.00
1756	ELEC-9.4.22	18" dia 2" thick hume pipe ring	1	No	303.00
1757	ELEC-9.4.23	18" dia 3" hume pipe ring	1	No	364.00
1758	ELEC-9.4.24	2" thick CC cover for hume pipe ring with handle.	1	No	159.00
	ELEC-9.4.25	Supply of Saddle / Clamps suitable for fixing -----			
1759	a	4 to 10 Sqmm 2 Core Cable.	100	Nos	279.00
1760	b	4 & 6 Sqmm 4 Core Cable.	100	Nos	279.00
1761	c	10 & 16 Sqmm 4 Core Cable.	100	Nos	364.00
1762	d	25 & 35 Sqmm 3.5 Core Cable.	100	Nos	425.00
1763	e	50 Sqmm 3.5 Core Cable.	100	Nos	607.00
1764	f	70 & 95 Sqmm 3.5 Core Cable.	100	Nos	668.00
1765	g	120 to 185 Sqmm 3.5 Core Cable.	100	Nos	849.00
1766	h	240 & 300 Sqmm 3.5 Core Cable.	100	Nos	1031.00
1767	i	400 Sqmm 3.5 Core Cable.	100	Nos	1335.00
	ELEC-9.4.26	Supply and fixing of PVC synthetic elastomer electrically insulated mat conforming to IS: 15652-2006 with----- -----			
1768	a	Class A insulation having 2mm thickness upto 3.3KV	1	Sq Mtr	4608.00
1769	b	Class B insulation having 2.5mm thickness upto 11KV	1	Sq Mtr	4730.00
1770	c	Class C insulation having 3mm thickness upto 33KV	1	Sq Mtr	4851.00
1771	ELEC-9.4.27	Supply of round bottom G.I sheet bucket of 9 Ltrs. Capacity as per IS:2546 made out of 24 gauge GI sheet with extra handle at bottom duly painted inside and red out side with printed with FIRE Mark for stand and hook and filled with sand and arranged to existing stand or hook.	1	No	328.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1772	ELEC-9.4.28	Providing floor mounting stand for keeping 4No of fire bucket 1500mm length, 900mm height made out of 40x40x6mm angle iron welded with 4 hooks and duly painted with one coat of red lead and two coats of enamel paint.	1	No	1335.00
1773	ELEC-9.4.29	Supply and erection of conventional spike type air termination suitable to carry lightning stroke, made up of hevy grade 40 mm dia copper pipe of standard length of 5 Nos copper spikes fixed on copper ball as air terminals duly threaded in copper pipe erected in provided foundation in an approved manner	1	No	5821.00
		SECTION - 10			
	10.1	WIRELESS FIRE ALARAM SYSTEM			
1774	ELEC-10.1.1	Supply and fixing of Wireless Repeater including transportation and all labour charges etc complete. Makes : Eaton / Honeywell / Securiton / Schark	1	No	10626.00
1775	ELEC-10.1.2	Supply and fixing of Wireless Siren Strobe external wireless siren - a fully supervised power code outdoor (IP55) wireless Siren and strobe light. Designed for external installation. Wire - Free connection between control panel and siren. Convenient rapid no- mess installation. Separate fire alarm signals, 98db Piezo siren and high power strobe light. Weather resistant, IP55, 2-way communication for local and remote diagnostics. Plug-in power supply, NIMH rechargeable back-up power battery, transmits status, tamper, low- battery, supervisory and AC loss messages to the control panel, Tri- State tamper switch identifies screw manipulation removal of cover or playing from the wall Including transportation and all labour charges etc complete. Makes : Eaton / Honeywell / Securiton / Schark	1	No	14927.00
1776	ELEC-10.1.3	Supply and fixing of wireless Fully Supervised Smoke Detector, Photoelectric detection technology for superior detection sensitivity , sound and transmitted for smoke, tamper and low battery, works on power code protocol, easy programming and enrolling to the control panel, long life 9 volt alkaline or lithium battery Including transportation, all taxes and all labour charges etc complete. Makes : Eaton / Honeywell / Securiton / Schark	1	No	7337.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Scheduled Rate
	10.2	ADDRESSABLE - FIRE ALARM SYSTEM		
	ELEC-10.2.1	Supplying, installing, testing and commissioning approved make Microprocessor based Multi-loop, UL Listed & FM Approved, True Peer-to-Peer Networkable Addressable Fire Alarm Control Panel with minimum 600 characters LCD display, 4000 trouble events including 1000 alarm log history events,, Programmable through panel. The panel should be equipped with sufficient numbers of loops considering 15% spare capacity in each loop and shall be extendable upto 10 Loops. Each loop shall have a capacity of minimum 125 detectors & 125 other devices exculding 15% spare. The panel shall work in degrade mode in case of CPU failure, Products not having this feature may offer Redundant CPU. Four access levels, flash EPROM, 240 volts AC power supply, automatic battery charger, 24 volts sealed lead acid batteries sufficient for 24 hours normal working and 30 mins in alarm condition with the charging capacity of 200AH. The panel shall be complete with Integrated 8 channel Digital Voice Evacuation System Controller capable of broadcasting Evacuation Messages on same peer-to-peer Network and 2 ways Communication		
		Fire Fighters System capable of supervising all the speaker circuits with adequate zone control and accessories. Failure of Fire Panel CPU shall not result in failure of DVC operation. Products not having this feature must provide dedicated CPU for DVC. The Fire Fighters Telephone System shall be capable of having minimum 30 Telephones in conference in multiple FFT Risers. The panel shall be capable of self programing without any dependancy on dongle or programming software. Quoted rate shall include supply of necessary software & hardware for progamming the panel with all necessary licence. Panel shall have Modbus/ Bacnet over IP protocol for future integration with BMS. However, for present arrangement FA system will be standalone with 24x7 monitoring. The panel shall be capable for remote accessibility on a mobile app through cloud platform/solution. Designed to meet UL864, 10th Edition. Makes: Siemens / Notifier / Edwards / Honeywell		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		/ Morley IAS / Bosch / Cooper / Appolo / Kartar			
1777	a	10 loop micro processor	1	No	698280.00
1778	b	8 loop micro processor	1	No	506000.00
1779	c	6 loop micro processor	1	No	468050.00
1780	d	4 loop micro processor	1	No	316250.00
1781	e	2 loop micro processor	1	No	265650.00
1782	f	1 loop micro processor	1	No	227700.00
	ELEC-10.2.2	Supplying, installing, testing and commissioning approved make Microprocessor based Multi-loop, UL Listed & FM Approved, True Peer-to-Peer Networkable Addressable Fire Alarm Control Panel with minimum 600 characters LCD display, 4000 trouble events including 1000 alarm log history events,, Programmable through panel. The panel should be equipped with sufficient numbers of loops considering 15% spare capacity in each loop and shall be extendable upto 10 Loops. Each loop shall have a capacity of minimum 125 detectors & 125 other devices exculding 15% spare. The panel shall work in degrade mode in case of CPU failure, Products not having this feature may offer Redundant CPU. Four access levels, flash EPROM, 240 volts AC power supply, automatic battery charger, 24 volts sealed lead acid batteries sufficient for 24 hours normal working and 30 mins in alarm condition with the charging capacity of 200AH.			
		The panel shall be capable of self programing without any dependancy on dongle or programming software. Quoted rate shall include supply of necessary software & hardware for progamming the panel with all necessary licence. Panel shall have Modbus/ Bacnet over IP protocol for future integration with BMS. However, for present arrangement FA system will be standalone with 24x7 monitoring. The panel shall be capable for remote accessibility on a mobile app through cloud platform/solution. Designed to meet UL864, 10th Edition. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/Cooper Appolo / Kartar			
1783	a	10 loop micro processor	1	No	652740.00
1784	b	8 loop micro processor	1	No	461725.00
1785	c	6 loop micro processor	1	No	416185.00
1786	d	4 loop micro processor	1	No	282095.00
1787	e	2 loop micro processor	1	No	236555.00
1788	f	1 loop micro processor	1	No	215050.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1789	ELEC-10.2.3	Supplying, installing, testing and commissioning approved make Network Repeater Panel with minimum 10" Color Touch Screen display/ programmable Keypad, mapping minimum 2,00,000 points on network. The NRP shall act as an independent node communicating on the peer to peer network and shall not be dependant on the Fire Panel CPU for operation. Failure of Fire Panel CPU shall not result in failure of NRP operation. UL Listed & FM Approved Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch / Cooper / Appolo / Kartar	1	No	134090.00
1790	ELEC-10.2.4	Supplying, installing, testing and commissioning approved make Sounder cum Strobe with Control Module, Sounder rated at 80 dBA @ 3m for Audible annunciation and 115cd flashintg at 1 Hz for visual indication. UL Listed. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch / Cooper / Appolo / Kartar	1	No	4764.00
1791	ELEC-10.2.5	Supplying, installing, testing and commissioning approved make Addressable Manual Call Point (Pull Station Type dual action). The device shall have an LED which shall blink in normal state & get steady on activation to monitor the heath status of the device. UL Listed & FM Approved Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch / Cooper / Appolo / Kartar	1	No	4571.00
1792	ELEC-10.2.6	Supplying, installing, testing and commissioning approved make Addressable Photoelectric Smoke Detector with sensitivity range of 0.5 to 4.0% obs/ft. The detector shall have group decision technology for faster response & avoid false alarms. The detector shall have twin bi-colour LED for 360 deg viewing. Addressing shall be with user friendly rotary decimal switches. The detector sensitivity (day & night) shall be controlled from the panel to get accustomed to the local environment.The detector shall work on cooperative mode to avoid false alarm.The detector shall comply UL268, 7th Edition guidelines. UL Listed & FM Approved. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch/cooper / Appolo / Kartar	1	No	3699.00
1793	ELEC-10.2.7	Supplying, installing, testing and	1	No	3464.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		commissioning approved make Addressable Rate of Rise Heat Detector rated at 8.3 deg C/min. The detector shall have twin bi-colour LED for 360 deg viewing. Addressing shall be with user friendly rotary decimal switches. Detector shall comply UL521 guideline.UL Listed & FM Approved. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch/Cooper / Appolo / Kartar			
1794	ELEC-10.2.8	Supplying, installing, testing and commissioning approved make Addressable Multi-criteria Photo-Thermal Above False Ceiling Detector with sensitivity range of 0.5 to 4.0% obs/ft.The intelligent multi criteria detection device shall include the ability to combine the signal of the thermal sensor with the signal of the photoelectric signal in an effort to react hastily in the event of a fire situation. It shall also include the inherent ability to distinguish between a fire condition and a false alarm condition by examining the characteristics of the thermal and smoke sensing chambers and comparing them to a database of actual fire and deceptive phenomena. The detector shall have twin bi-colour LED for 360 deg viewing. Addressing shall be with user friendly rotary decimal switches. The detector sensitivity (day & night) shall be controlled from the panel to get accustomed to the local environment.The detector shall comply UL268, 7th Edition guidelines. UL Listed & FM Approved. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch / Cooper / Appolo / Kartar	1	No	3659.00
1795	ELEC-10.2.9	Supplying, installing, testing and commissioning approved make Addressable Control Module for Sounders / Strobes / Sounder cum Strobes. The control module shall provide supervised NAC output rated at 24v DC, 2A. The device shall have an LED which shall blink in normal state & get steady on activation to monitor the heath status of the device. Addressing shall be with user friendly rotary decimal switches. Module shall be supplied with mounting plate from OEM for ease of installation & maintenance. UL Listed & FM Approved. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch/cooper / Appolo / Kartar	1	No	4047.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1796	ELEC-10.2.10	Supplying, installing, testing and commissioning approved make Addressable Monitor Module for Sprinklers, Panic Bars & other Third Party Inputs. The monitor module shall monitor potential free contacts. The device shall have an LED which shall blink in normal state & get steady on activation to monitor the heath status of the device. Addressing shall be with user friendly rotary decimal switches. Module shall be supplied with mounting plate from OEM for ease of installation & maintenance. UL Listed & FM Approved. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch/cooper / Appolo / Kartar	1	No	4047.00
1797	ELEC-10.2.11	Supplying, installing, testing and commissioning approved make Isolator Module for Isolating short / dewired / loose circuits with automatic resetting arrangement. Isolator Base can also be proposed, however in that case needs to be considered with each detector & module. The device shall have an LED which shall blink in normal state & get steady on activation to monitor the heath status of the device. Module shall be supplied with mounting plate from OEM for ease of installation & maintenance. UL Listed & FM Approved. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch/cooper / Appolo / Kartar	1	No	3894.00
1798	ELEC-10.2.12	Supplying, installing, testing and commissioning approved make Network Repeater Panel with minimum 10" Color Touch Screen display/ programmable Keypad, mapping minimum 2,00,000 points on network. The NRP shall act as an independent node communicating on the peer to peer network and shall not be dependant on the Fire Panel CPU for operation. Failure of Fire Panel CPU shall not result in failure of NRP operation. UL Listed & FM Approved. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/cooper / Appolo / Kartar	1	No	91091.00
1799	ELEC-10.2.13	Supplying, installing, testing and commissioning approved make Sounder cum Strobe with Control Module, Sounder rated at 80 dBA @ 3m for Audible annunciation and 115cd flashintg at 1 Hz for visual indication. UL Listed.	1	No	4099.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/cooper / Appolo / Kartar			
1800	ELEC-10.2.14	Supplying, installing, testing and commissioning approved make Addressable Manual Call Point (Pull Station Type). The device shall have an LED which shall blink in normal state & get steady on activation to monitor the heath status of the device. UL Listed & FM Approved. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/cooper / Appolo / Kartar	1	No	4406.00
1801	ELEC-10.2.15	Supplying, installing, testing and commissioning approved make Addressable Photoelectric Smoke Detector with sensitivity range of 0.5 to 4.0% obs/ft. The detector shall have group decision technology for faster response & avoid false alarms. The detector shall have twin bi-colour LED for 360 deg viewing. Addressing shall be with user friendly rotary decimal switches. The detector sensitivity (day & night) shall be controlled from the panel to get accustomed to the local environment.The detector shall work on coperative mode to avoid false alarm.The detector shall comply UL268, 7th Edition guidelines. UL Listed & FM Approved. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/cooper / Appolo / Kartar	1	No	3484.00
1802	ELEC-10.2.16	Supply and installation of UL approved intellegent analogue addressable rate of rise cum fixed temparature heat detectors including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/Cooper / Appolo / Kartar	1	No	3586.00
1803	ELEC-10.2.17	Supplying, installing, testing and commissioning approved make Addressable Rate of Rise Heat Detector rated at 8.3 deg C/min. The detector shall have twin bi-colour LED for 360 deg viewing. Addressing shall be with user friendly rotary decimal switches. Detector shall comply UL521 guideline.UL Listed & FM Approved. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/Cooper / Appolo /	1	No	3802.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Kartar			
1804	ELEC-10.2.18	Supplying, installing, testing and commissioning approved make Addressable Multi-criteria Photo-Thermal Above False Ceiling Detector with sensitivity range of 0.5 to 4.0% obs/ft. The intelligent multi criteria detection device shall include the ability to combine the signal of the thermal sensor with the signal of the photoelectric signal in an effort to react hastily in the event of a fire situation. It shall also include the inherent ability to distinguish between a fire condition and a false alarm condition by examining the characteristics of the thermal and smoke sensing chambers and comparing them to a database of actual fire and deceptive phenomena. The detector shall have twin bi-colour LED for 360 deg viewing. Addressing shall be with user friendly rotary decimal switches. The detector sensitivity (day & night) shall be controlled from the panel to get accustomed to the local environment. The detector shall comply UL268, 7th Edition guidelines. UL Listed & FM Approved. Makes: Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/cooper / Appolo / Kartar	1	No	3821.00
1805	ELEC-10.2.19	Supplying, installing, testing and commissioning approved make Addressable Control Module for Sounders / Strobes / Sounder cum Strobes. The control module shall provide supervised NAC output rated at 24v DC, 2A. The device shall have an LED which shall blink in normal state & get steady on activation to monitor the heath status of the device. Addressing shall be with user friendly rotary decimal switches. Module shall be supplied with mounting plate from OEM for ease of installation & maintenance. UL Listed & FM Approved. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/cooper / Appolo / Kartar	1	No	3607.00
1806	ELEC-10.2.20	Supplying, installing, testing and commissioning approved make Addressable Monitor Module for Sprinklers, Panic Bars & other Third Party Inputs. The monitor module shall monitor potential free contacts. The device shall have an LED which shall blink in normal state & get steady on activation to monitor the heath status of the device.	1	No	3484.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Addressing shall be with user friendly rotary decimal switches. Module shall be supplied with mounting plate from OEM for ease of installation & maintenance. UL Listed & FM Approved. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/Cooper / Appolo / Kartar			
	10.3	CONVENTIONAL - FIRE ALARM SYSTEM (Approved by LPCB / UL Listed)			
	ELEC-10.3.1	Supply, Installation, testing and commissioning of conventional Micro processor based Fire Alarm -----panel with 2 nos of 12V SMF batteries etc., complete with all standard accessories. (Battery nos to be arrived based on number of Alarm devices) The panel shall be compectible with RS485, CAT 6A cables. Also panel shall be IoT compatible. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance			
1807	a	2 zone	1	No	17710.00
1808	b	4 zone	1	No	18469.00
1809	c	6 zone	1	No	18722.00
1810	d	8 zone	1	No	19102.00
1811	e	10 zone	1	No	24984.00
1812	f	12 zone	1	No	27830.00
1813	g	14 zone	1	No	30360.00
1814	ELEC-10.3.2	Supply and installation of Repeater panel including the cost of mounting accessories complete as per specifications and as required. The panel shall be compectible with RS485, CAT 6A cables. Also panel shall be IoT compactible. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance	1	No	15180.00
1815	ELEC-10.3.3	Supply and installation of duel tone electronic hooter of 85dB including the cost of mounting accessories complete as per specifications and as required. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance	1	No	886.00
1816	ELEC-10.3.4	Supply and installation of dust and vermin proof manual call point to initiate audio visual alarm including the cost of mounting accessories complete as per specifications and as required. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance	1	No	734.00
1817	ELEC-10.3.5	Supply and installation of response indicators for above false ceiling detectors. Makes: System Censor / Ravel / Vertex / Seaara	1	No	165.00
1818	ELEC-10.3.6	Supply and installation of plug - in type	1	No	1898.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		multi criterion detectors including the cost of base plate. 75mm dia M.S. outlet box for fixing of the detector base. Mounting accessories etc., complete as per specifications as required. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance			
1819	ELEC-10.3.7	Supply and installation of plug - in type photo electric smoke detectors including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base. Mounting accessories etc complete and as per specifications and as required. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance	1	No	1645.00
1820	ELEC-10.3.8	Supply and installation of plug - in type rate of rise cum fixed temperature heat detectors including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance	1	No	1518.00
		BEAM DETECTORS			
1821	ELEC-10.3.9	Supplying, installing, testing and commissioning approved make Addressable Loop Powered Autoaligned Beam Detector. The beam detector shall be used for High Ceiling application with a detection range from 5 upto 100 mtrs and highly resistant to building movement; tolerates +/- 1° movement, Resistant to solid object intrusion, , Built-in imager heater, Resistant to strong light sources; does not alarm when saturated by sunlight, Automatic sensitivity threshold level settings and drift compensation. The detector shall be IP-55 compliant. UL Listed & FM Approved. Makes: Notifier / Edwards / Bosch			41745.00
1822	ELEC-10.3.10	Supplying, installing, testing and commissioning approved make Addressable Loop Powered Autoaligned Beam Detector. The beam detector shall be used for High Ceiling application with a detection range from 5 upto 100 mtrs and highly resistant to building movement; tolerates +/- 1° movement, Resistant to solid object intrusion, , Built-in imager heater, Resistant to strong light sources; does not alarm when saturated by sunlight, Automatic sensitivity threshold level settings and drift compensation. The detector shall be IP-			69575.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		55 compliant.UL Listed & FM Approved.Makes :Notifier / Edwards /Bosch			
	10.4	POWDER BASED FIRE EXTINGUISHERS			
1823	ELEC-10.4.1	ABC Powder type fire extinguisher of 6 Kgs. Capacity, with initial filling in brand new cylinder with powder coated finish, fitted with Gun metal union, high pressure gas cartridge, discharge hose, wall mounting bracket / stand etc. complete, confirming to IS:15683 (For car parking)			
		Makes : FIREX /MINIMAX/ ARMOUR /SAFEX/ KANNEX / CEASEFIRE	1	No	4900.00
1824	ELEC-10.4.2	Supply and fixing of Co2 4.5 Kg capacity type extinguisher with initial filling in brand new cylinder with powder coated finish, fitted with Gun metal union, high pressure, discharge hose, wall mounting bracket / stand etc. complete, confirming to IS:15683. electrical room			
		Makes : FIREX /MINIMAX/ ARMOUR /SAFEX/ KANNEX / CEASEFIRE	1	No	4255.00
1825	ELEC-10.4.3	Supply and fixing of Co2 2 Kg capacity type extinguisher with initial filling in brand new cylinder with powder coated finish, fitted with Gun metal union, high pressure gas cartridge, discharge hose, wall mounting bracket / stand etc. complete, confirming to IS:15683. Inside Lift Machine room			
		Makes : FIREX /MINIMAX/ ARMOUR /SAFEX/ KANNEX / CEASEFIRE	1	No	2990.00
1826	ELEC-10.4.4	Supply and fixing of Ceiling mounted type clean agent automatic fire extinguisher of capacity 05 kgs fitted with an automatic sprinkler valve & that shall be calibrated to discharge at an ambient temperature of 68°C. Extinguisher shall be manufactured strictly as per IS standards. Quoted rate shall include necessary supports suitable for ceiling mounting.			
		Makes : FIREX /MINIMAX/ ARMOUR /SAFEX/ KANNEX / CEASEFIRE	1	No	5750.00
1827	ELEC-10.4.5	Supply and fixing of Water Mist type fire extinguisher 9 liters. Capacity, with initial filling in brand new cylinder with powder coated finish, fitted with Gun metal union, high pressure gas cartridge, discharge hose, wall mounting bracket / stand etc. complete, confirming to IS:15683. (Provided near Stair case landing)			
		Makes : FIREX /MINIMAX/ ARMOUR /SAFEX/ KANNEX / CEASEFIRE	1	No	5500.00
		AEROSOL GENERATION SYSTEM (AGS)			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		AND FIRE EXTINGUISHERS			
1828	ELEC-10.4.6	Supply, installation, testing and commissioning of Addressable Control panel for AGS system with monitoring system and provision of interactive TFT color Graphic Display with touch Screen Control and shall have built in feature of Mimic software which works on a Android based technology and a facility to show the layout location of the installation area and prescribed location of the devices during the fire accident. shall have minimum two level password protection. Shall have alert indication for missing device, contaminated device. The control panel shall have real-time clock (RTC) indicate time, date, month & year and along with a provision of Ethernet based circuit as if required. Makes : SALAMANDRA / SEAARA / AGS	1	No	47585.00
1829	ELEC-10.4.7	Supply, installation, testing and commissioning of Addressable Multi sensor with integrated smoke sensing chamber and heat sensing element. Addressable smoke detector shall operate on light scatter principle. The build-up of dirt or similar contamination on the sensing chamber shall be continually monitored by control panel, when it exceeds predetermined level; the panel has to indicate that the detector is in need of servicing. The detector shall have an integral microprocessor capable of making alarm decision based on alarm level set. The Obs/ft should be 0.5 obs/ft. The detector shall blink when the detector is addressed and glow steady on alarm. The detector shall have provision to alter the sensitivity from the panel. The detector shall have electronic free base. The detector and base construction shall be made of polycarbonate plastic. The detector shall be capable of reading from the control panel, i.e. health of the detector, alarm level setting. Latching the detector, isolating the detector from the control panel shall be possible. The detector shall preferably have twin LED's for 360 viewing angle. Makes : SALAMANDRA / SEAARA / AGS	1	No	2429.00
1830	ELEC-10.4.8	Supply, installation, testing and commissioning of addressable Loop Powered Sounder with integral beacon within horn using high intensity LED technology. The sounder beacon shall work with loop power. No separate power	1	No	2816.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		supply with cable shall be used. The sounder beacon shall be addressable type. It shall have electronic addressing. No DIP/DIL switches are permitted for address setting in order to avoid unauthorized setting. The construction of the sounder beacon shall be made of polycarbonate plastic. The sounder beacon sound pressure level shall be 85 dB at 10ft. Makes : SALAMANDRA / SEAARA / AGS			
1831	ELEC-10.4.9	Supply, installation, testing and commissioning of addressable Control Module with built-in LED. The LED shall blink when it is addressed and it shall glow steady when it is actuated and it should have principle of working with NC/NO relay circuit. It should have a cross zoning facility with a inbuilt sounder. The control module shall have electronic addressing. The control contact rating shall be a minimum of 2 amps @ 24V DC (Resistive). The control module shall operate from SLC loop power. No external power/cable shall be used. Makes : SALAMANDRA / SEAARA / AGS	1	No	3205.00
1832	ELEC-10.4.10	Supply and installation of manually operated suppression system using Aerosol Generator System for all classes of fire with active substance of 3.3. Kg and does cooling effect with no re-ignition. The product with minimum life of 15 years and no maintenance. The discharge time should be 25 sec and has net weight of 4.6 kg and has a capacity to cover 60 m ³ and shall be confirmed to NFPA 2010 and has other national and international certificates.	1	No	72349.00
1833	ELEC-10.4.11	Supply of Auto Detection and Suppression System using Aerosol Generator System with required fittings as per standard composition for all classes of fire, With a provision to connect to detect smoke and heat with a obt/ft of 0.5 and flexibility of adjusting it for a temperature of 57/68/93/141 degree centigrade as per the site environment. The product Min Life shall be 15 years and no Maintenance. The Discharge time should be 78 sec. The Generator with a net weight of 10 kg Active Substance of 3.25 kg. and has diameter 220mm and height 220mm The Generator is suitable for Server Room, Electrical Storage and technical appliances, important	1	No	116534.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		documents area & etc. Makes : SALAMANDRA / SEAARA / AGS			
1834	ELEC-10.4.11	Supply of Auto Detection and Suppression System using Dry Sprinkler Generator as per standard composition for all classes of fire, with a provision to connect to detect smoke and heat with a obt/ft of 0.5 and flexibility of adjusting it for a temperature of 57/68/93/141 degree centigrade as per the site environment. The product Min Life shall be 15 years and no Maintenance. The Discharge time should be 21 sec. The Generator has a net weight of 1.2 kg. Active Substance of 0.3 kg and has diameter 20mm and height 135mm. The Generator is suitable for Server Room, Electrical Storage and technical appliances, important documents area & etc. Makes : SALAMANDRA / SEAARA / AGS	1	No	38845.00
1835	ELEC-10.4.12	Supply of Auto Detection and Suppression System using Aerosol Generator System as per standard composition with required fittings for all classes of fire, with a provision to connect to detect smoke and heat with a obt/ft of 0.5 and flexibility of adjusting it for a temperature of 57/68/93/141 degree centigrade as per the site environment. The product Min Life shall be 15 years and no Maintenance. The Discharge time should be 50 sec. The Generator has a net weight of 4.5 kg. Active Substance of 1.4 kg and has diameter 40mm and height 187mm. The Generator is suitable for Server Room, Electrical Storage and technical appliances, important documents area & etc. Makes : SALAMANDRA / SEAARA / AGS	1	No	68463.33
1836	ELEC-10.4.13	Supply of Aerosol Heat Starter Sprinkler used for Auto Detection and Suppression System for Aerosol Generator System for all Class of Fire. The heat Starter Sprinkler has various starter capacity, which ranges from +50c to +163c. The starter can cover up to 18 m2. The product Min Life shall be 15 years. The output power from the Starter is 3v and current 0.6A and operates at a temperature range of - 50c to +80c. The Starter Sprinkler is suitable for Server Room, Electrical Storage and technical appliances, Important documents area etc. Makes : SALAMANDRA / SEAARA / AGS	1	No	8255.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	10.5	CLEAN AGENT FIRE EXTINGUISHERS			
1837	ELEC-10.5.1	Supply and fixing of 2 Kg Fire extinguisher Clean Agent HCFC 123, Stored pressure type, IS 15683 : 2006 pressure guage, gross weight 3.7 Kg empty weight 1.7 Kg, can hight 344mm, Diameter 108mm, discharge time minimum 8 secs, controllable discharge mechanism, range minimum 2 meters, applicable on class A,B,C and electrically started Fire, A rating 1A, B rating 21B, can construction: Deep drawn & CO2 mig welded, Valve construction: Forging & Machining, Internal coating of Can: Epoxy powder coating, External coating of can: Epoxy polyster powder coating, sheet metal thickness: 1.60 mm, Helium leak detection tested, ISI & CE approved, 5 Years warranty.			
		Makes : Safex / Kenex / Bharat.	1	No	11270.00
1838	ELEC-10.5.2	Supply and fixing of 4 Kg Fire extinguisher Clean Agent HCFC 123, Stored pressure type, IS 15683 : 2006, pressure guage, gross weight 6.9Kg empty weight 2.9 Kg, can hight 440mm, Diameter 140mm, discharge time minimum 8 secs, controllable discharge mechanism, range minimum 2 meters, applicable on class A,B,C and electrically started Fire, A rating 1A, B rating 21B, can construction: Deep drawn & CO2 mig welded, Valve construction: Forging & Machining, Internal coating of Can: Epoxy powder coating, External coating of can: Epoxy polyster powder coating, sheet metal thickness: 1.60 mm, Helium leak detection tested, ISI & CE approved 5 Years warranty.			
		Makes : Safex / Kenex / Bharat.	1	No	21505.00
1839	ELEC-10.5.3	Supply & Fixing of 4.5Kg, CO2 Type Fire Extinguisher, Trolley Mounted, Easy Weight Management, Used Unused Mechanism, Squeeze Grip, Gross Weight 19.1 Kg, Empty Weight 14.6 Kg, Can Height 860MM, Diameter 140MM, Discharge time minimum 13 Secs, Controllable discharge mechanism, Range minimum 2 Meters, Applicable on Class B,C & electrically started Fire, B Rating 13B, Can Construction : Hot Spinning / Forging, Valve Construction : Forging & Machining, Internal Coating of Can : Not Applicable, External Coating of Can : Spray Painting, Sheet metal thickness : 4.5MM, ISI & CE Approved, 2 Year Warranty Including transportation, all			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		taxes and all labour charges etc complete.			
		Makes : Safex / Kenex / Bharat / Reliance	1	No	8395.00
1840	ELEC-10.5.4	Supply and fixing of Escape signage boards in Rigid Photo luminecent based glow in Dark rigid sheet with high intensity luminous properties with specificalton of Cease Fire or its equivalent make Model-1ES01	1	No	1334.00
	10.6	WATER MIST FIRE EXTINGUISHERS			
1841	ELEC-10.6.1	Supply & Fixing of Water Mist 9 Ltr. Fire Extinguisher : Gross Weight - 23.9 kg., Weight of the empty firefighting system without compressed air bottle and bottle valve - 14.9 kg., Can Height - 560 MM, Diameter - 204MM, Weight of the gun- 1.9kg, Nominal charge - 9 Ltr., Recoil - approx. 10N, Extinguishing Media Flow - 0.23 L/ sec, Water Discharge Hose - 13 MM, Discharge time minimum 25 Secs, Range minimum 10 Meters, Compressed Air to Gun - 10 MM, Applicable on Class A, B, C & Electrically started Fires, ARating-27A, BRating-233B, Compressed air bottle (volume/pressure) - 2L / 300bar, Operating pressure(dynamic)-approx 5.0 bar, Lancing distance of the extinguishing agent-in spray Approx. 7.0 m, in jet mode Approx, 12.0 m. Operation time- approx 40 sec, Extinguishing enhancement agent- Foam Additive, CE and ERDA approved, Sheet Metal Thickness - 1.5MM, 1 Year Warranty. Makes: Cease Fire or Equivalent	1	No	163000.00
1842	ELEC-10.6.2	Refilling of Fire extinguisher of DCP type by dismantling from site to work shop for refilling includes removing of existing powder and cleaning the cylinder, delivery pipe, nozzle internally and refilling new powder complete with reinstalling properly at site with necessary certificate including transportation and labour charges.	1	Kg	200.00
1843	ELEC-10.6.3	Refilling of Fire extinguisher of ABC type by dismantling from site to work shop for refilling includes removing of existing powder and cleaning the cylinder, delivery pipe, nozzle internally and refilling new powder complete with reinstalling properly at site with necessary certificate including transportation and labour charges.	1	Kg	225.00
1844	ELEC-10.6.4	Refilling of Fire extinguisher of CO2 type by dismantling from site to work shop for refilling includes removing of existing powder and cleaning the cylinder,	1	Kg	175.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		delivery pipe, nozzle internally and refilling new powder complete with reinstalling properly at site with necessary certificate including transportation and labour charges.			
	10.7	FIRE HYDRANT AND SPRINKLER SYSTEM			
	ELEC-10.7.1	Supply, Transportation, installation, testing and commissioning of electric driven main fire pump suitable for automatic operation and consisting of following complete in all respect as required			
		a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- lpm at ----- Mtr. head conforming to IS 1520			
		b) Suitable HP SQ cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Pumps: Kirloskar / Mather&Platt.			
		Makes of Motors: Siemens/ ABB/ Kirloskar			
1845	a	1620 LPM, 56 Mtr Head	1	Set	416588.00
1846 a	b	1620 LPM, 70 Mtr Head	1	Set	468826.00
1846 b	c	1620 LPM, 88 Mtr Head	1	Set	509163.00
1846 c	d	1620 LPM, 110 Mtr Head	1	Set	502000.00
1847	e	1620 LPM, 130 Mtr Head	1	Set	572000.00
	ELEC-10.7.2	Supply, Transportation, installation , testing and commissioning of electric driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required			
		a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- lpm at ----- Mtr. head			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		conforming to IS 1520			
		b) Suitable HP SQ cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Pumps: Kirloskar / Mather&Platt.			
		Makes of Motors: Siemens/ ABB/ Kirloskar			
1848 a	a	2280 LPM, 56 Mtr Head	1	Set	431135.00
1848 b	b	2280 LPM, 70 Mtr Head	1	Set	485358.00
1848 c	c	2280 LPM, 88 Mtr Head	1	Set	535613.00
1849	d	2280 LPM, 110 Mtr Head	1	Set	532000.00
1850	e	2280 LPM, 130 Mtr Head	1	Set	622000.00
	ELEC-10.7.3	Supply, Transportation, installation , testing and commissioning of electric driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required.			
		a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- lpm at----- Mtr. head conforming to IS 1520			
		b) Suitable HP SQ cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Pumps: Kirloskar / Mather&Platt.			
		Makes of Motors: Siemens/ ABB/ Kirloskar			
1851 a	a	2850 LPM, 56 Mtr Head	1	Set	470810.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1851 b	b	2850 LPM, 70 Mtr Head	1	Set	525033.00
1851 c	c	2850 LPM, 88 Mtr Head	1	Set	563385.00
1852	d	2850 LPM, 110 Mtr Head	1	Set	572000.00
1853	e	2850 LPM, 130 Mtr Head	1	Set	662000.00
	ELEC-10.7.4	Supply, Transportation, installation, Testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required			
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- lpm at ---Mtr head conforming to IS 1520			
		b) Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete with auto starting mechanism, 12 Volts / 24 Volts electric starting equipment, Diesel Tank, exhaust pipe extended upto 1 m. outside pump house duly insulated with 50mm thick glass wool with 1.0mm thick alluminium sheet cladding, residential silencer, instruments and protection as per specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc as required.			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Engines : Kirloskar / Cummins.			
		Makes of Pumps : Kirloskar / Mather&Platt			
1854 a	a	1620 LPM, 56 Mtr Head	1	Set	550160.00
1854 b	b	1620 LPM, 70 Mtr Head	1	Set	603060.00
1854 c	c	1620 LPM, 88 Mtr Head	1	Set	642735.00
1855	d	1620 LPM, 110 Mtr Head	1	Set	632000.00
1856	e	1620 LPM, 130 Mtr Head	1	Set	672000.00
	ELEC-10.7.5	Supply, Transportation, installation, Testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- - lpm at----- Mtr head conforming to IS 1520			
		b) Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete with auto starting mechanism, 12 Volts / 24 Volts electric starting equipment, Diesel Tank, exhaust pipe extended upto 1 m. outside pump house duly insulated with 50mm thick glass wool with 1.0mm thick alluminium sheet cladding, residential silencer, instruments and protection as per specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc as required.			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Engines : Kirloskar / Cummins.			
		Makes of Pumps : Kirloskar / Mather&Platt			
1857 a	a	2280 LPM, 56 Mtr Head	1	Set	743245.00
1857 b	b	2280 LPM, 70 Mtr Head	1	Set	797468.00
1857 c	c	2280 LPM, 88 Mtr Head	1	Set	835820.00
1858	d	2280 LPM, 110 Mtr Head	1	Set	802000.00
1859	e	2280 LPM, 130 Mtr Head	1	Set	872000.00
	ELEC-10.7.6	Supply, Transportation, installation, Testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required			
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- lpm at---- Mtr head conforming to IS 1520			
		b) Suitable HP, 1500 / 1800 RPM water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete with auto starting mechanism, 12 Volts, 100 Ah Battery, Battery Leads			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		with stands, electric starting equipment, Diesel Tank, exhaust pipe extended upto 1 m. outside pump house duly insulated with 50mm thick glass wool with 1.0mm thick alluminium sheet cladding, residential silencer, instruments and protection as per specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc as required.			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads complete set and the capacity of the day tank should be 6 hours of the SFC with support structure, anchoring arrangement, with all controls and valves.			
		Makes of Engines : Kirloskar / Cummins.			
		Makes of Pumps : Kirloskar / Mather&Platt			
1860 a	a	2850 LPM, 56 Mtr Head	1	Set	842433.00
1860 b	b	2850 LPM, 70 Mtr Head	1	Set	896655.00
1860 c	c	2850 LPM, 88 Mtr Head	1	Set	935008.00
1861 a	d	2850 LPM, 110 Mtr Head	1	Set	952000.00
1861 b	e	2850 LPM, 130 Mtr Head	1	Set	1072000.00
	ELEC-10.7.7	Supply, Transportation, installation , testing and commissioning of electric driven pressurisation / Jockey pump suitable for automatic operation and consisting of following : complete in all respect as required			
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal and flow of ----- lpm at ----- Mtr head conforming to IS 1520. Pump shall be capable of furnishing not less than 150% of rated capacity at a head of not less than 65% of the rated head. The shut off rate shall not exceed 120% of rated head.			
		b) Squirrel cage induction motor, TEFC type suitable for operation on 415 volts, 3 phase 50 HZ A.C supply, for the above pump with synchronous speed of 1500 RPM, conforming to IP 55 protection & class F insulation. The motor shall conform to IS 325-1978 (up to date) with			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		flexible coupling and coupling guard, complete as required.			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Pumps : Kirloskar / Mather&Platt.			
		Makes of Motors : Siemens/ ABB/ Kirloskar			
1862 a	a	180 LPM, 56 Mtr Head	1	Set	71151.00
1862 b	b	180 LPM, 70 Mtr Head	1	Set	100642.00
1862 c	c	180 LPM, 88 Mtr Head	1	Set	126960.00
1863	d	180 LPM, 110 Mtr Head	1	Set	132000.00
1864	e	180 LPM, 130 Mtr Head	1	Set	172000.00
	ELEC-10.7.8	Supply, Transportation, installation , testing and commissioning of electric driven Terrace / Booster pump suitable for automatic operation and consisting of following : complete in all respect as required.			
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal and flow of lpm at Mtr head conforming to IS 1520			
		b) Suitable HP SQ cage induction motor TEFC type suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Pumps : Kirloskar / Mather&Platt.			
		Makes of Motors : Siemens / ABB / Kirloskar			
1865	a	900 LPM, 45 Mtr Head	1	Set	80673.00
1866	b	750 LPM, 35 Mtr Head	1	Set	72738.00
1867	c	450 LPM, 35 Mtr Head	1	Set	59513.00
		CONTROL PANELS			
1868	ELEC-10.7.9	Fabrication, supply,Transportation, Insallation testing & commissioning of Electrical control panel of cubical construction, floor mounted type, fabricated out of 2mm thick CRCA sheet, compartmentalised with hinged lockable	1	No	285131.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Scheduled Rate
		doors, dust and vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley, interconnection with suitable size copper conductor cable/solid copper strip, having switchgears and accessories, mountings and internal wiring, earth terminals, numbering etc. complete in all respect, suitable for main fire pump, pressurisation pump & diesel pump set complete with following in coming and Outgoings, suitable for operation on 415V, 3 phase, 50Hz Ac Supply. Makes of MCCBs : L&T / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conzerve) / L&T / Elmeasure / Siemens		
		<u>INCOMING :</u>		
		250A, 50kA 4 Pole MCCB, Ics=100% Icu rating		
		Digital Voltmeter 0-500V with selector switch		
		Digital Ammeter (0-250 A) with selector switch & CTs etc.		
		LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps		
		Set of Copper Bus Bar 300A		
		<u>OUTGOING :</u>		
		(Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)		
		<u>MAIN FIRE PUMP</u>		
		125 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 HP pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation selector switch for local/remote, auto/manual/OFF operation.		
		<u>JOCKEY PUMP</u>		
		63 A, 50kA TPN MCCB, Ics=100% Icu, with suitable protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.		
		<u>DIESEL ENGINE CONTROL</u>		
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Water Temp and Engine on indication. Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0- 20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller.			
1869	ELEC-10.7.10	Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification Makes of MCCBs : L&T / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conserve) / L&T / Elmeasure / Siemens	1	No	334593.00
		<u>INCOMING :</u>			
		400A, 50kA 4 Pole MCCB, Ics=100% Icu rating			
		Digital Voltmeter 0-500V with selector switch			
		Ammeter (0-400 A) with selector switch & CTs etc.			
		LED type RYB phase indicating lamps, ON, OFF, trip			
		indicating lamps			
		Set of Copper Bus Bar 500A			
		<u>OUTGOING :</u>			
		(Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)			
		MAIN FIRE PUMP			
		200 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.			
		JOCKEY PUMP			
		100 A, 50kA TPN MCCB, Ics=100% Icu, with suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		operation, selector switch for local/remote, auto/manual/OFF operation.			
		DIESEL ENGINE CONTROL			
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempt starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller			
1870	ELEC-10.7.11	Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specifications. Makes of MCCBs : L&T / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conserve) / L&T / Elmeasure / Siemens	1	No	375590.00
		INCOMING :			
		630A, 50kA 4 Pole MCCB, Ics=100% Icu rating			
		Digital Voltmeter 0-500V with selector switch			
		Ammeter (0-630 A) with selector switch & CTs etc.			
		LED type RYB phase indicating lamps, ON, OFF, trip			
		indicating lamps			
		Set of Copper Bus Bar 800Amps			
		OUT GOING :			
		(Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)			
		MAIN FIRE PUMP			
		250 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 100 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		<u>JOCKEY PUMP</u>			
		125 A, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with over load protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.			
		<u>DIESEL ENGINE CONTROL</u>			
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller.			
1871	ELEC-10.7.12	Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification Makes of MCCBs : L&T / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conserve) / L&T / Elmeasure / Siemens	1	No	433780.00
		<u>INCOMING :</u>			
		400A, 50kA 4 Pole MCCB, Ics=100% Icu Rating			
		Digital Voltmeter 0-500V with selector switch			
		Ammeter (0-400 A) with selector switch & CTs etc.			
		LED type RYB phase indicating lamps, ON, OFF, trip			
		indicating lamps			
		Set of Copper Bus Bar 500Amps			
		<u>OUT GOING :</u>			
		(Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)			
		<u>MAIN FIRE PUMPS</u>			
		125 Amp, 50kA TPN MCCB, Ics=100% Icu,			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		with fully automatic Star/Delta starter suitable for 60 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
		JOCKEY PUMP			
		63 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
		DIESEL ENGINE CONTROL			
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indi Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller			
1872	ELEC-10.7.13	Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification Makes of MCCBs : L&T / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conzerve) / L&T / Elmeasure / Siemens	1	No	518420.00
		<u>INCOMING :</u>			
		630A, 50kA 4 Pole MCCB, Ics=100% Icu Rating			
		Digital Voltmeter 0-500V with selector switch			
		Ammeter (0-630 A) with selector switch & CTs etc.			
		LED type RYB phase indicating lamps, ON, OFF, trip			
		indicating lamps			
		Set of Copper Bus Bar 800Amps			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		<u>OUT GOING :</u>			
		(Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)			
		<u>MAIN FIRE PUMP</u>			
		200 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
		<u>JOCKEY PUMP</u>			
		100 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
		<u>DIESEL ENGINE CONTROL</u>			
		Control for diesel engine comprising - Automatic/Manual selctor switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitbale for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller.			
1873	ELEC-10.7.14	Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification Makes of MCCBs : L&T / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conzerve) / L&T / Elmeasure / Siemens	1	No	669185.00
		<u>INCOMING :</u>			
		800A, 50kA 4 Pole MCCB, Ics=100% Icu Rating			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Digital Voltmeter 0-500V with selector switch			
		Ammeter (0-800 A) with selector switch & CTs etc.			
		LED type RYB phase indicating lamps, ON, OFF, trip			
		indicating lamps			
		Set of Copper Bus Bar 1000Amps			
		<u>OUT GOING :</u>			
		(Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)			
		Main Fire Pump			
		250 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 100 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
		JOCKEY PUMP			
		125 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
		DIESEL ENGINE CONTROL			
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller			
		MS PIPES			
	ELEC-10.7.15	Supply, Transportation, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		frame and painting with two or more coats of synthetic enamel paint of required shade complete as required Makes : Jindal Hissar / Tata pipes			
		C' CLASS			
1874	a	300 mm dia 'C' Class	1	Mtr	9600.00
1875	a	250 mm dia 'C' Class	1	Mtr	6119.00
1876	b	200 mm dia 'C' Class	1	Mtr	4919.00
1877	c	150 mm dia 'C' Class	1	Mtr	3484.00
1878	d	100 mm dia 'C' Class	1	Mtr	2282.00
1879	e	80 mm dia 'C' Class	1	Mtr	1555.00
1880	f	65 mm dia 'C' Class	1	Mtr	1166.00
1881	g	50 mm dia 'C' Class	1	Mtr	937.00
1882	h	40 mm dia 'C' Class	1	Mtr	729.00
1883	i	32 mm dia 'C' Class	1	Mtr	620.00
1884	j	25 mm dia 'C' Class	1	Mtr	476.00
		B' CLASS			
	ELEC-10.7.16	Supply, Transportation, laying, testing & commissioning of 'B' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required Makes : Jindal Hissar / Tata pipes			
1885	a	250 mm dia 'B' Class	1	Mtr	5260.00
1886	b	200 mm dia 'B' Class	1	Mtr	4295.00
1887	c	150 mm dia 'B' Class	1	Mtr	2815.00
1888	d	100 mm dia 'B' Class	1	Mtr	1903.00
1889	e	80 mm dia 'B' Class	1	Mtr	1397.00
1890	f	65 mm dia 'B' Class	1	Mtr	1047.00
1891	g	50 mm dia 'B' Class	1	Mtr	823.00
1892	h	40 mm dia 'B' Class	1	Mtr	570.00
1893	i	32 mm dia 'B' Class	1	Mtr	515.00
1894	j	25 mm dia 'B' Class	1	Mtr	420.00
		GI PIPES			
	ELEC-10.7.17	Supply, Transportation, laying, testing & commissioning of 'C' class heavy duty GI pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required Makes : Jindal Hissar / Tata pipes			
		C' CLASS			
1895	a	300 mm dia 'C' Class	1	Mtr	9600.00
1896	a	250 mm dia 'C' Class	1	Mtr	7440.00
1897	b	200 mm dia 'C' Class	1	Mtr	5832.00
1898	c	150 mm dia 'C' Class	1	Mtr	3924.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1899	d	100 mm dia 'C' Class	1	Mtr	2640.00
1900	e	80 mm dia 'C' Class	1	Mtr	1848.00
1901	f	65 mm dia 'C' Class	1	Mtr	1438.00
1902	g	50 mm dia 'C' Class	1	Mtr	1127.00
1903	h	40 mm dia 'C' Class	1	Mtr	863.00
1904	i	32 mm dia 'C' Class	1	Mtr	748.00
1905	j	25 mm dia 'C' Class	1	Mtr	552.00
		B' CLASS			
	ELEC-10.7.18	Supply, Transportation, laying, testing & commissioning of 'B' class heavy duty GI pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required Makes : Jindal Hissar / Tata pipes			
1906	a	250 mm dia 'B' Class	1	Mtr	6480.00
1907	b	200 mm dia 'B' Class	1	Mtr	5076.00
1908	c	150 mm dia 'B' Class	1	Mtr	3648.00
1909	d	100 mm dia 'B' Class	1	Mtr	2328.00
1910	e	80 mm dia 'B' Class	1	Mtr	1644.00
1911	f	65 mm dia 'B' Class	1	Mtr	1265.00
1912	g	50 mm dia 'B' Class	1	Mtr	1001.00
1913	h	40 mm dia 'B' Class	1	Mtr	771.00
1914	i	32 mm dia 'B' Class	1	Mtr	656.00
1915	j	25 mm dia 'B' Class	1	Mtr	460.00
		HYDRANAT VALVES			
	ELEC-10.7.19	Supply and fixing single headed internal / External hydrant valve with instantaneous Gunmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required : Make: Mini Max / Safex / Newage / Winco / Newtech / Padmini / Kartar			
1916	a	Single headed Gunmetal	1	No	9235.00
1917	b	Single headed Stainless Steel	1	No	6900.00
		BUTTER FLY VALVES			
	ELEC-10.7.20	Supply, testing and commissioning of butterfly valve PN 1.6, with Bronze / Gun metal seat duly ISI marked complete with Nuts, Bolts, Washers, gaskets, conforming to IS 13095 of following sizes as required. Makes: Audco / Kirloskar / BDK / H-Shankar / Leader/ Zolotto / Intervolve / Honeywell / Kartar			
1918	a	250 mm . dia	1	No	20746.00
1919	b	200 mm . dia	1	No	8729.00
1920	c	150 mm dia	1	No	7211.00
1921	d	100 mm dia	1	No	5629.00
1922	e	80 mm dia	1	No	5123.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1923	f	65 mm dia	1	No	4500.00
1924	g	50 mm dia	1	No	4050.00
1925	h	45 mm dia	1	No	3800.00
		NON RETURN VALVES(NRVS)			
	ELEC-10.7.21	Supply, installation, testing and commissioning of C.I. non - return valve of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc as required Makes: Audco / Kirloskar / BDK / H-Shankar / Leader/ Zolotto / Intervolve / Honeywell./ Kartar			
1926 a	a	200 mm dia	1	No	14168.00
1926 b	b	150 mm dia	1	No	11334.00
1926 c	c	100 mm dia	1	No	10563.00
1927	d	80 mm dia	1	No	7843.00
1928	e	50 mm dia	1	No	3858.00
		WAFFER LUG TYPE BUTTER FLY VALVES			
	ELEC-10.7.22	Supply and delivery of C.I. Valves conforming to IS 13095/1991 (Reaffirmed 1998) including transportation etc., complete. Makes: Audco / Kirloskar / BDK / H-Shankar / Leader/ Zolotto / Intervolve / Honeywell/ Kartar			
1929	a	250 mm . dia	1	No	20114.00
1930	b	200 mm . dia	1	No	14042.00
1931	c	150 mm dia	1	No	9108.00
1932	d	100 mm dia	1	No	6072.00
1933 a	e	80 mm dia	1	No	4554.00
1933 b	f	50 mm dia	1	No	3669.00
		Y-STAINER			
	ELEC-10.7.23	Supplying, installing and commissioning C.I. flanged "Y" type Strainer with SS mesh, suitable flanges, nuts, bolts, gaskets etc. complete. (PN 10 Rating)			
1934	a	300 mm . dia	1	No	42000.00
1935	b	250 mm . dia	1	No	30107.00
1936	c	200 mm . dia	1	No	24541.00
1937	d	150 mm dia	1	No	15180.00
1938	e	100 mm dia	1	No	7211.00
1939	f	80 mm dia	1	No	5060.00
1940	g	50 mm dia	1	No	3416.00
		GUN METAL VALVES			
	ELEC-10.7.24	Supplying, installing, testing and commissioning of Brass chrome finished Ball valves with fittings of screwed end type. (PN25 Rating) Make: Newage / Winco / Padmini / Safex.			
1941	a	50 mm dia	1	No	2176.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1942	b	40 mm dia	1	No	1746.00
1943	c	32 mm dia	1	No	1556.00
		RRL HOSE PIPE			
	ELEC-10.7.25	Supply and fixing 63mm dia, 15 mtr long RRL hose pipe with 63mm dia Male and Female Gun metal / SS couplings duly binded with GI wire, rivets etc conforming to IS 636 (Type -A) as required. Make: Mini Max / Safex / Newage / Winco / Newtech / Padmini / Kartar			
1944	a	Gun metal	1	No	6475.00
1945	b	SS couplings			5313.00
		CP HOSE PIPES			
	ELEC-10.7.26	Supply and fixing 63mm dia, 15 mtr long CP hose pipe with 63mm dia Male and Female Gun metal / SS couplings duly binded with GI wire, rivets etc conforming to IS 636 (Type -A) as required. Make: Mini Max / Safex / Newage / Winco / Newtech / Padmini. / Kartar			
1946	a	Gun metal	1	No	5520.00
1947	b	SS couplings	1	No	5060.00
		HOSE REEL			
1948	ELEC-10.7.27	Hose reel drum of swinging type with 19mm dia Rubber braided hose of 40M. length with Gate valve (upstream) and gunmetal Shut off nozzle, 25mm ball valve complete set. (Including Refuge area)	1	No	8090.00
		CRCA HOSE BOX			
1949	ELEC-10.7.28	Supplyand fixing of hose cabinet of size 750mm X 600mm x 250mm made of No 16 gauge SWG CRCA sheet with 6mm thick glazed glass door including necessary locking arrangement suitable to accommodate 2 Nos 15 mtr long Hose pipe, 1 No branch pipe, mounted on wall OR raised brick platform and duly painted with Post office red externally and white internally with synthetic enamel paint complete in all respect, for external hydrant as required. Make: Mini Max / Safex / Newage / Winco / Newtech / Padmini. / Kartar	1	No	5900.00
		NOZZLES			
	ELEC-10.7.29	Supply and fixing 63mm dia branch pipe with 20mm (Nominal internal diameter) size ----- nozzle conforming to IS 903, suitable for instantaneous connection to interconnect hose pipe coupling as required. Make : Mini Max / Safex / Newage / Winco / Newtech / Padmini./ Kartar			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1950	a	Gun metal	1	No	2783.00
1951	b	SS couplings	1	No	2024.00
		FIRE BRIGADE CONNECTION			
	ELEC-10.7.30	Supply and fixing ---- of cast iron body with --- Nos inlet couplings complete with cap and chain as required for 150mm dia MS pipe connection, conforming to IS 904 as required. Make: Mini Max / Safex / Newage / Winco / Newtech / Padmini./ Kartar			
1952	a	4Way Fire brigade connection cast iron body with 4 Nos Gun metal male instantaneous	1	No	9660.00
1953	b	3Way Fire brigade connection cast iron body with 3 Nos Gun metal male instantaneous	1	No	8453.00
1954	c	2Way Fire brigade connection cast iron body with 2 Nos Gun metal male instantaneous	1	No	7245.00
		AIRCUSION TANK (AIR VESSEL)			
1955	ELEC-10.7.31	Supply and fixing air vessel made of 250 mm dia, 8 mm thick MS sheet, 1200mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25mm dia Gun metal wheel valve, with required accessories, pressure gauge and painting with synthetic enamel paint of approved shade as required.	1	No	18113.00
		SPRINKLERS			
1956	ELEC-10.7.32	Supplying, installing, testing and commissioning conventional Sprinkler quartzoid bulb (Standard Response) type with 15mm screwed end connection of 68 deg. C. temperature rating,K 80 and orifice shall not be less than 6mm.Sprinklers shall be UL Listed / FM approved with Chrome finished. Makes: SAFEX / HD / TYCO / VIKING / NEWAGE / Newtech / SHARP / Kartar	1	No	580.00
1957	ELEC-10.7.33	Supplying, installing, testing and commissioning conventional Concealed Sprinkler quartzoid bulb (Standard Response) type with 15mm screwed end connection of 68 deg. C. temperature rating,K 80 and orifice shall not be less than 6mm.Sprinklers shall be UL Listed / FM approved with Chrome finished. Makes: SAFEX / HD / TYCO / VIKING / NEWAGE / SHARP / Kartar	1	No	1449.00
		FLEXIBLE SPRINKLER HOSE PIPE			
	ELEC-10.7.34	Stainless steel Braided flexible pipe (hose) for dropping sprinklers below false ceiling, pipe shall be 12 bar pressure rating and ----- long 25 mm dia with union / reducer collar, clamps etc. as			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		required. (Only for common area lobby) UL Listed Makes: SAFEX / HD / TYCO / VIKING / NEWAGE / SHARP / Kartar			
1958	a	1500mm	1	No	1510.00
1959	b	1000-1200mm	1	No	1293.00
1960	c	700-800mm	1	No	1075.00
		PRESSURE SWITCHES AND FLOW SWITCHES			
1961	ELEC-10.7.35	Supply and installation of Pressure switches (PN 20 bar) of suitable range for pump sets with Ball valves, Fittings like unions / colours / reducers etc. Make : Danfoss / Indfoss	1	No	3019.00
1962	ELEC-10.7.36	Supplying, installing, testing and commissioning flow switch on sprinkler distribution header on each floor and shall be connected to fire alarm panel through cable. Cable shall be measured separately. Makes : System Sensor / Switzer	1	No	6038.00
		PRESSURE GAUGES			
1963	ELEC-10.7.38	Supply and installation of Pressure gauges (PN 20 bar) of suitable range for pump sets with Ball valves, Fittings like unions / colours / reducers etc.(Glistering filled) Makes : HGURU / FIEBIG	1	No	797.00
1964	ELEC-10.7.39	Supplying, installing, testing and commissioning of Forged brass chrome finished Ball valves with fittings of screwed end type. Makes : Zoloto / Leader / Honeywell / Kartar	1	No	1392.00
1965	ELEC-10.7.40	Supplying, installing, testing and commissioning of Forged brass chrome finished Ball valves with fittings of screwed end type. Makes : Zoloto / Leader / Honeywell / Kartar	1	No	772.00
		AIR RELEASE VALVE			
1966	ELEC-10.7.41	Supplying and fixing approved make 25 mm dia. With automatic air release valve with unions etc. complete. (PN 16) (Spring loaded type)	1	No	1480.00
		FIRE SAFTEY AUDIT			
1967	ELEC-10.7.42	Providing / Conducting complete fire audit including submission of fire audit report for the whole premises.	1	Sq Mtr	7.00
		ANTI CORROSIVE BITUMINOUS PAINT			
	ELEC-10.7.43	Supplyand wrapping the anti corrosive material for buried pipes with coating of Primer and wrapping with 4 mm thick polymer corrosion resistant tape as per IS : 10221 with 15 mm overlap as per standard specificatios.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1968	a	80mm nominal dia	1	Mtr	354.00
1969	b	100mm nominal dia	1	Mtr	468.00
1970	c	150mm nominal dia	1	Mtr	531.00
1971	d	200mm nominal dia	1	Mtr	746.00
		VANE TYPE WATER FLOW DETECTOR			
	ELEC-10.7.44	Providing, fixing, testing & commissioning of installation control valve of cast iron body,brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/sprinkler system activates, pressure gauges, emergency releases, strainer, pressure switch, cock valve complete with drain valve and bypass, test control box, ball valves, MS pipe of required size, flanges, orifice plate, gasket etc of follwing sizes as required : Makes : HD / TYCO / NEWAGE or its equivalent make as desired by the department.			
1972	a	80mm dia	1	No	46754.00
1973	b	100mm dia	1	No	48829.00
1974	c	150mm dia	1	No	50853.00
		DELUGE VALVE			
	ELEC-10.7.45	Supplying, Installing, testing and commissioning of Deluge valve with wet pilot trim (hydraulic release), electric release trim test and alarm trip complete with all accessories, fittings, pressure guages, valves, actuator manifold etc. alarm gong including upstream and downstream main header. The valve shall be UL listed / FM approved. Makes : HD / TYCO / NEWAGE or its equivalent make as desired by the department.			
1975	a	50 mm dia	1	Set	91080.00
1976	b	80 mm dia	1	Set	93610.00
1977	c	100mm dia	1	Set	96140.00
1978	d	150mm dia	1	Set	116380.00
1979	ELEC-10.7.46	Supplying, installing, testing and commissioning of water curtain nozzle with 15 mm screwed end connection and K 23 factor & angle of spray shall be as per detail engineering. Nozzle shall be made of brass with Chrome finished.	1	No	696.00
1980	ELEC-10.7.47	Supply, installation, testing & commissioning of electric release trim assembly for deluge wall with two way solenoid valve, weather proof operation on 24 volts DC supply complete as required.	1	No	7590.00
1981	ELEC-	Supply, installation, testing &	1	No	253.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	10.7.48	commissioning of adjustable rosette plate for 15mm dia in white finish UL Listed or FM approved complete as required.			
		SLUICE VALVE			
	ELEC-10.7.49	Supply, Erection, Testing and commissioning of -----C.I. Gate valves OS&Y as per IS:14846 (PN 10 Rating) and rising spindle type with flanges, bolts, nuts, washers, gaskets etc. The valve shall be fitted with chain lock and key arrangement .			
1982	a	40 mm dia	1	Set	5693.00
1983	b	50 mm dia	1	Set	7590.00
1984	c	65 mm dia	1	Set	10120.00
1985	d	80 mm dia	1	Set	10753.00
1986	e	100 mm dia	1	Set	16445.00
1987	f	150 mm dia	1	Set	22770.00
1988	g	200 mm dia	1	Set	44275.00
1989 a	h	250 mm dia	1	Set	50600.00
1989 b	i	300 mm dia	1	Set	69575.00
		ORIFICE PLATE			
1990	ELEC-10.7.50	Supply and fixing orifice plate made of 6 mm thick stainless steel with orifice of required size in between flange & LANDING valve of hydrant take off point to reduce pressure to working pressure, complete as per relevant codes and approval of the local Fire Service Department.	1	No	12650.00
		SECTION - 11			
	11.1	GENERATORS SPECIFICATION			
	ELEC-11.1.1	Supply, Transportation, erection and commissioning (Excluding Foundation) of 3 Phase, 415, 50Hz, water cooled multi cylinder diesel generator set with alternator of - - - KVA/ - - - - KW out put contineous rating directly coupled Engine and Alternator with guard and mounted on a common base plate of Robust construction and complete with standard control panel having IP-52 protection, Acoustic Enclosure as per CPCB norms , sound absorbing material, to restrict sound level up to 75 dB up to 1 mtr distance and as per CPCB norms etc as per following specifications mentioned below.			
		A. Alternator : Kirloskar / Stamford / Crompton Greaves / Leroy Somer make. The alternator of the output rating shall be 3 Phase, 415V, 50Hz, Ac , 0.8 P.F. lagging at 1500 RPM. The alternator is self excited, self regulated, and shall confirm			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		to IS: 13364 of 1992 with regulation of +5% from no load to full load. degree of protections shall be IP23.			
		B.Diesel Engine : Kirloskar / Cummins / Mahindra & Mahindra / Greaves Cotton / Eicher / Ashok Leyland Diesel Engine start, developing suitable ----- BHP output at 1500 RPM with mechanical / electronic governing so as to enable the alternator to give - - - -KVA continuous output at 0.8 P.F. lagging at NTP conditions. The diesel engine shall be capable of providing 10% O/L for 1 Hr for every 11 Hrs of continuous running at full load. The engine with 1st filling of oil and Diesel etc. 01. Exhaust pipe of required size and length with insulation as per the site condition with alluminium clading. 02. Diesel tank suitable for 8 to 12 Hours running capacity. 03. Residential Silencer. 04. SMF Batteries with leads as per the Manufacturer standards			
1991	a	15 KVA, 3 Phase, 415, 50 Hz, 19 BHP, water cooled multy cylinder diesel generator set with alternator of 15 KVA output continious rating at 0.8 p.f. Batteries.	1	No	454600.00
1992	b	30 KVA, 3 Phase, 415, 50 Hz, 40 to 42 BHP, water cooled multy cylinder diesel generator set with alternator of 30 KVA output continious rating at 0.8 p.f. Batteries.	1	No	588306.00
1993	c	40 KVA, 3 Phase, 415, 50 Hz, 56 BHP, water cooled multy cylinder diesel generator set with alternator of 40 KVA output continious rating at 0.8 p.f. Batteries.	1	No	732707.00
		DG SET WITH AMF PANEL			
	ELEC-11.1.2	Supply, Transportation, erection and commissioning (Excluding Foundation) of 3 Phase, 415, 50Hz, water cooled multi cylinder diesel generator set with alternator of - - - KVA/ - - - - KW out put contineous rating directly coupled Engine and Alternator with guard and mounted on a common base plate of Robust construction and complete with AMF panel having IP-52 protection, Acoustic Enclosure as per CPCB norms , sound absorbing material, to restrict sound level up to 75 dB up to 1 mtr distance and as per CPCB norms etc as per following specifications mentioned below.			
		A. Alternator : Kirloskar / Stamford /			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Scheduled Rate
		Crompton Greaves / Leroy Somer make. The alternator of the output rating shall be 3 Phase, 415V, 50Hz, Ac , 0.8 P.F. lagging at 1500 RPM. The alternator is self excited, self regulated, and shall confirm to IS: 13364 of 1992 with regulation of +5% from no load to full load. degree of protections shall be IP21.		
		B.Diesel Engine : Kirloskar / Cummins / Mahindra & Mahindra / Greaves Cotton / Eicher / Ashok Leyland Diesel Engine start, developing suitable ----- BHP output at 1500 RPM with mechanical / electronic governing so as to enable the alternator to give - - - -KVA continuous output at 0.8 P.F. lagging at NTP conditions. The diesel engine shall be capable of providing 10% O/L for 1 Hr for every 11 Hrs of continuous running at full load. The engine with 1st filling of oil and Diesel etc. 01. Exhaust pipe of required size and length with insulation or clading. 02. Diesel tank suitable for 8 to 12 Hours running capacity. 03. Residential Silencer. 04. SMF Batteries with leads as per the Manufacturer standards		
		C. AMF Control Panel:- AMF control panel shall be fabricated with 16SWG CRCA sheet shall be totally enclosed with dust and Vermin proof, floor mounted / wall mounted type and shall be comprising the following. 01. Voltmeter with selector switch. 02. 4 Pole MCCB incomer of -----A rating of Schenieder / L&T make for EB and DG . 03. Ammeter with selector switch with CTs. 04. PF Meter and frequency Meter. 05. Indicator lamps (set Run, Load ON) with fuses. 06. KWH Meter of required rating. 07. Set of control fuses and current transformer. 08. Input Terminal board and output Terminal Board. 09. Battery charger with transformer rectifier unit. 10. Alternator supply air break contactor of L&T make. 11. Main supply air break contactor of L&T make. 12. Audio Visual annunciation . 13. Main supply voltage set of control		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		relays and timers with one mode selector switch, set of push buttons. 14.Control cable up to 15 Mtrs 2.5Sqmm 6 Core			
1994	a	62.5 KVA, 3 Phase, 415, 50 Hz, 78 to 83 BHP, water cooled multy cylinder diesel generator set with alternator of 63 KVA output continious rating at 0.8 p.f. Batteries.	1	No	962681.00
1995	b	125 KVA, 3 Phase, 415, 50 Hz, 154 BHP, water cooled multy cylinder diesel generator set with alternator of 125 KVA output continious rating at 0.8 p.f. Batteries.	1	No	1296945.00
1996	c	160 KVA, 3 Phase, 415, 50 Hz, not less than 200 BHP, water cooled multy cylinder diesel generator set with alternator of 160 KVA output continious rating at 0.8 p.f. Batteries.	1	No	1698063.00
1997	d	250 KVA, 3 Phase, 415, 50 Hz, not less than 310 BHP, water cooled multy cylinder diesel generator set with alternator of 250 KVA output continious rating at 0.8 p.f. Batteries.	1	No	2620632.00
	ELEC-11.1.3	Supply, Transportation, erection and commissioning (Excluding Foundation) of 3 Phase, 415, 50Hz, water cooled multi cylinder diesel generator set with alternator of - - - KVA/ - - - - KW out put contineous rating directly coupled Engine and Alternator with guard and mounted on a common base plate of Robust construction and complete with AMF panel having IP-52 protection, Acoustic Enclosure as per CPCB norms , sound absorbing material, to restrict sound level up to 75 dB up to 1 mtr distance and as per CPCB norms etc as per following specifications mentioned below.			
		A. Alternator : Kirloskar / Stamford / Crompton Greaves / Leroy Somer make. The alternator of the output rating shall be 3 Phase, 415V, 50Hz, Ac , 0.8 P.F. lagging at 1500 RPM. The alternator is self excited, self regulated, and shall confirm to IS: 13364 of 1992 or latest version with regulation of +5% from no load to full load. degree of protections shall be IP23.			
		B.Diesel Engine : Kirloskar / Cummins / Catterpillar Diesel Engine start, developing suitable ----- BHP output at 1500 RPM with mechanical / electronic governing so as to enable the alternator to give - - - -KVA continuous output at 0.8 P.F. lagging at NTP			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		conditions. The diesel engine shall be capable of providing 10% O/L for 1 Hr for every 11 Hrs of continuous running at full load. The engine with 1st filling of oil and Diesel etc. 01. Exhaust pipe of required size and length with insulation as per the site condition with alluminium clading. 02. Diesel tank suitable for 8 to 12 Hours running capacity. 03. Residential Silencer. 04. SMF Batteries with leads as per the Manufacturer standards			
		C. AMF Control Panel:- AMF control panel shall be fabricated with 16SWG CRCA sheet shall be totally enclosed with dust and Vermin proof, floor mounted / wall mounted type and shall be comprising the following. 01. Voltmeter with selector switch. 02. 4 Pole MCCB incomer of -----A rating of Schenieder / L&T make for EB and DG. 03. Ammeter with selector switch with CTs. 04. PF Meter and frequency Meter. 05. Indicator lamps (set Run, Load ON) with fuses. 06. KWH Meter of required rating. 07. Set of control fuses and current transformer. 08. Input Terminal board and output Terminal Board. 09. Battery charger with transformer rectifier unit. 10. Alternator supply air break contactor of L&T make. 11. Main supply air break contactor of L&T make. 12. Audio Visual annunciation. 13. Main supply voltage set of control relays and timers with one mode selector switch, set of push buttons. 14. Control cable up to 15 Mtrs 2.5Sqmm 6 Core			
1998	a	320 KVA, 3 Phase, 415, 50 Hz, not less than 380 BHP, water cooled multy cylinder diesel generator set with alternator of 320 KVA output continious rating at 0.8 p.f. Batteries.	1	No	3396124.00
1999	b	500 KVA, 3 Phase, 415, 50 Hz, not less than 580 BHP, water cooled multy cylinder diesel generator set with alternator of 500 KVA output continious rating at 0.8 p.f. Batteries.	1	No	4746552.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		DG SET WITH STANDARD CONTROL PANEL			
	ELEC-11.1.4	Supply, Transportation, erection and commissioning (Excluding Foundation) of 3 Phase, 415, 50Hz, water cooled multi cylinder diesel generator set with alternator of - - - KVA/ - - - - KW out put contineous rating directly coupled Engine and Alternator with guard and mounted on a common base plate of Robust construction and complete with AMF panel having IP-52 protection, Acoustic Enclosure as per CPCB norms , sound absorbing material, to restrict sound level up to 75 dB up to 1 mtr distance and as per CPCB norms etc as per following specifications mentioned below.			
		A. Alternator : Kirloskar / Stamford / Crompton Greaves / Leroy Somer make. The alternator of the output rating shall be 3 Phase, 415V, 50Hz, Ac , 0.8 P.F. lagging at 1500 RPM. The alternator is self excited, self regulated, and shall confirm to IS: 13364 of 1992 with regulation of +5% from no load to full load. degree of protections shall be IP21.			
		B.Diesel Engine : Kirloskar / Cummins / Mahindra & Mahindra / Greaves Cotton / Eicher / Ashok Leyland Diesel Engine start, developing suitable ----- BHP output at 1500 RPM with mechanical / electronic governing so as to enable the alternator to give - - - -KVA continuous output at 0.8 P.F. lagging at NTP conditions. The diesel engine shall be capable of providing 10% O/L for 1 Hr for every 11 Hrs of continuous running at full load. The engine with 1st filling of oil and Diesel etc.with standard control panel. 01. Exhaust pipe of required size and length with insulation as per the site condition with alluminium clading. 02. Diesel tank suitable for 8 to 12 Hours running capacity. 03. Residential Silencer. 04. SMF Batteries with leads as per the Manufacturer standards			
2000	a	62.5 KVA, 3 Phase, 415, 50 Hz, 78 to 83 BHP, water cooled multy cylinder diesel generator set with alternator of 63 KVA output continious rating at 0.8 p.f. Batteries.	1	No	764033.00
2001	b	125 KVA, 3 Phase, 415, 50 Hz, 154 BHP, water cooled multy cylinder diesel generator set with alternator of 125 KVA output continious rating at 0.8 p.f.	1	No	1000519.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Batteries.			
	ELEC-11.1.5	Supply, Transportation, erection and commissioning (Excluding Foundation) of 3 Phase, 415, 50Hz, water cooled multi cylinder diesel generator set with alternator of - - - KVA/ - - - - KW out put contineous rating directly coupled Engine and Alternator with guard and mounted on a common base plate of Robust construction and complete with AMF panel having IP-52 protection, Acoustic Enclosure as per CPCB norms , sound absorbing material, t to restrict sound level up to 75 dB up to 1 mtr distance and as per CPCB norms etc as per following specifications mentioned below.			
		A. Alternator : Kirloskar / Stamford / Crompton Greaves / Leroy Somer make. The alternator of the output rating shall be 3 Phase, 415V, 50Hz, Ac , 0.8 P.F. lagging at 1500 RPM. The alternator is self excited, self regulated, and shall confirm to IS: 13364 of 1992 or latest version with regulation of +5% from no load to full load. degree of protections shall be IP23.			
		B.Diesel Engine : Kirloskar / Cummins / Catterpillar Diesel Engine start, developing suitable ----- BHP output at 1500 RPM with mechanical / electronic governing so as to enable the alternator to give - - - -KVA continuous output at 0.8 P.F. lagging at NTP conditions. The diesel engine shall be capable of providing 10% O/L for 1 Hr for every 11 Hrs of continuous running at full load. The engine with 1st filling of oil and Diesel etc with standard control panel. 01. Exhaust pipe of required size and length with insulation as per the site condition with alluminium clading. 02. Diesel tank suitable for 8 to 12 Hours running capacity. 03. Residential Silencer. 04. SMF Batteries with leads as per the Manufacturer standards			
2002	a	160 KVA, 3 Phase, 415, 50 Hz, not less than 200 BHP, water cooled multy cylinder diesel generator set with alternator of 160 KVA output continious rating at 0.8 p.f. Batteries.	1	No	1444022.00
2003	b	250 KVA, 3 Phase, 415, 50 Hz, not less than 310 BHP, water cooled multy cylinder diesel generator set with alternator of 250 KVA output continious rating at 0.8 p.f. Batteries.	1	No	1938733.00
2004	c	320 KVA, 3 Phase, 415, 50 Hz, not less	1	No	3008378.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		than 380 BHP, water cooled multy cylinder diesel generator set with alternator of 320 KVA output continious rating at 0.8 p.f. Batteries.			
2005	d	500 KVA, 3 Phase, 415, 50 Hz, not less than 580 BHP, water cooled multy cylinder diesel generator set with alternator of 500 KVA output continious rating at 0.8 p.f. Batteries.	1	No	4211730.00
		NOTE: if only supply of DG sets is there, deduct 2% on above cost towards, installation, testing and commisining.			
		SECTION - 12			
	12.1	UPS SYSTEMS			
	ELEC-12.1.1	Supply and installation of ----- ----- home Inverter system pure sine wave out put, single phase input / Single phase output with tubular batteries for 1 Hour Back up. Makes: Servomax / Top Power / Amar Raja / Samhitha / Microtech / Exide / Sukam / Fuji Electric			
2006	a	800VA, 12VDC	1	No	8883.00
2007	b	1400VA, 24VDC	1	No	12540.00
2008	c	2000VA, 36VDC	1	No	17765.00
	ELEC-12.1.2	Supply, Transportation and installation of -----true on line UPS system IGBT technology pure sine wave out put, with double conversion with auto and manual static by pass switch single phase input / Single phase output. Makes: Numeric / Emerson / Fuji Electric			
2009	a	2.0KVA , 72VDC / 96V DC	1	No	29072.00
2010	b	3.0KVA, 72VDC / 96V DC	1	No	39135.00
2011	c	5.0KVA, 192 / 240V DC	1	No	67795.00
2012	d	7.5KVA, 192 / 240V DC	1	No	93925.00
2013	e	10KVA, 192 / 240V DC	1	No	109579.00
	ELEC-12.1.3	Supply, Transportation and installation of ----- on line UPS system IGBT based rectifier with input power factor correction with isolation transformers double conversion, SNMP controls, LCD display, Pure sine wave out put, with auto static switch three phase input / Single phase output with warranty up to three years. Makes: APC / Numeric / Emerson / Fuji Electric			
2014	a	10KVA / 360V DC	1	No	235000.00
2015	b	20KVA / 360V DC	1	No	275000.00
		Note : If three phase input and three phase output is necessiated 10% extra cost may be allowed on above rates			
	12.2	UPS BATTERY RACKS AND WIRE LEADS			
	ELEC-12.2.1	Supply and providing of UPS cum battery			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		rack -----			
2016	a	Up to 4 batteries	1	No	1485.00
2017	b	5 to 10 batteries	1	No	2750.00
2018	c	11 to 20 batteries	1	No	5060.00
	ELEC-12.2.2	Supply and fixing of ----- SMF battery including wire leads. Makes : Quanta / Racket / Exide / Amaron.			
2019	a	12V 26 AH	1	No	4301.00
2020	b	12V 42 AH	1	No	7211.00
2021	c	12V 65 AH	1	No	8855.00
2022	d	12V 100 AH	1	No	11132.00
2023	e	12V 120 AH	1	No	12018.00
	ELEC-12.2.3	Supply and fixing of ----- AMF battery including wire leads. Makes : Amar Raja (Power Zone) or Equivalent model of Exide / Panasonic / Gotech.			
2024	a	12V, 120 AH	1	No	12042.00
2025	b	12V, 150 AH	1	No	14548.00
	12.3	SERVO STABILIZERS			
	ELEC-12.3.1	Supply and installation of Servo Controlled Air Cooled Voltage Stabilizer with input voltage range 340 - 480 V 3 phase, output voltage 380 / 400 / 415 Volts + / 1%, 3 phase, frequency 50 Hz + / 6%, unbalancing load, Corrected speed 60 Volts / Sec, Efficiency 97 %, Ambience temperature 45 degree centigrade, AC Motor, Continuous duty cycle, Output waveform True production of Input, Indication lamps Mains ON , Output ON, Low Cut Off, High Cut oFF, dligital display to read ll electrical parameters, equipped with soft touch buttons for use of operation, with High and Low Voltage Protection, Single Phase Preventor, Short Circuit Protection, Single Phase Prevention and phase reversal protection etc., complete. Makes : Fuji Electric / Power Inn / Krykard			
2026	a	10 KVA	1	No	50000.00
2027	a	20 KVA	1	No	67000.00
2028	b	25 KVA	1	No	80000.00
2029	c	30 KVA	1	No	90000.00
2030	d	40 KVA	1	No	98000.00
2031	e	45 KVA	1	No	105000.00
2032	f	50 KVA	1	No	135000.00
2033	g	60 KVA	1	No	150000.00
2034	h	75 KVA	1	No	170000.00
2035	i	100 KVA	1	No	225000.00
2036	j	125 KVA	1	No	275000.00
2037	k	150 KVA	1	No	290000.00
2038	l	200 KVA	1	No	405000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-12.3.2	Supply and installation of Servo Controlled Oil Cooled Voltage Stabilizer with input voltage range 340 - 480 V 3 phase, output voltage 380 / 400 / 415 Volts + / 1%, 3 phase, frequency 50 Hz + / 6%, unbalancing load, Corrected speed 60 Volts / Sec, Efficiency 97 %, Ambience temperature 45 degree centigrade, AC Motor, Continuous duty cycle, Output waveform True production of Input, Indication lamps Mains ON , Output ON, Low Cut Off, High Cut off, dligital display to read ll electrical parameters, equipped with soft touch buttons for use of operation, with High and Low Voltage Protection, Single Phase Preventor, Short Circuit Protection, Single Phase Prevention and phase reversal protection etc., complete. Makes: Fuji Electric / Power Inn / Krykard			
2039	a	20 KVA	1	No	98000.00
2040	b	30 KVA	1	No	145000.00
2041	c	40 KVA	1	No	158000.00
2042	d	45 KVA	1	No	165000.00
2043	e	50 KVA	1	No	175000.00
2044	f	60 KVA	1	No	220000.00
2045	g	75 KVA	1	No	250000.00
2046	h	100 KVA	1	No	330000.00
2047	i	125 KVA	1	No	360000.00
2048	j	150 KVA	1	No	395000.00
2049	k	200 KVA	1	No	495000.00
2050	l	250 KVA	1	No	530000.00
2051	m	300 KVA	1	No	725000.00
2052	n	400 KVA	1	No	775000.00
2053	o	500 KVA	1	No	925000.00
		SECTION - 13			
	13.1	PUBLIC ADDRESSING SYSTEM			
2054	ELEC-13.1.1	Supply, Installation, Testing and Commissioning of Amplifier 120 W for PA system suitable to operate on 230 V AC / 12 V DC supply etc., complete.(AHUZA / OMEGA or equivalent)	1	No	20790.00
2055	ELEC-13.1.2	Supply, Installation, Testing and Commissioning of 15 W Sound Column etc., complete with connection (AHUZA / OMEGA or equivalent)	1	No	3234.00
2056	ELEC-13.1.3	Supply, Installation, Testing and Commissioning of microphone etc., complete with connections. (AHUZA / OMEGA or equivalent)	1	No	5775.00
2057	ELEC-13.1.4	Supply, Installation, Testing and Commissioning of stand for microphone etc., complete with connections.	1	No	2079.00
2058	ELEC-13.1.5	Supply, Installation, Testing and	1	No	1386.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Commissioning of Table stand for microphone etc., complete with connections.			
2059	ELEC-13.1.6	Supply, Installation, Testing and Commissioning of 2 core shielded microphone cable etc., complete with connections	1	Mtr	156.00
2060	ELEC-13.1.7	Supply, Installation, Testing and Commissioning of 0.5 Sq mm speaker cable etc., complete with connections	1	Mtr	41.00
2061	ELEC-13.1.8	Supply, Installation, Testing and Commissioning of 0.75 Sq mm speaker cable etc., complete with connections	1	Mtr	53.00
2062	ELEC-13.1.9	Supply, Installation, Testing and Commissioning of 1.0 Sq mm speaker cable etc., complete with connections	1	Mtr	58.00
2063	ELEC-13.1.10	Supply, Installation, Testing and Commissioning of 1.5 Sq mm speaker cable etc., complete with connections	1	Mtr	76.00

SECTION - 14
OLD MATERIAL RATES

S.No	Dismantled item :	Unit		Scheduled Rate
1	PVC insulated alluminium cables and wires	1	Kg	13.00
2	PVC insulated copper cables and wires	1	Kg	58.00
3	Alluminium Materials	1	Kg	71.00
4	MS / Iron poles, angle etc	1	Kg	29.00
5	Copper/Brass materials	1	Kg	162.00
6	PVC pipe/PVC materials.	1	Kg	6.00
7	IC switches/DBs/Feeder pillars.	1	No	15.00
8	All types of Ammeter/Voltmeter / any meter	1	No	29.00
9	All types of ACBs/OCBs/VCBs LT	1	No	1502.00
10	All types of ceiling fans/cabin fans/Bracket fans and pedestal fans etc.	1	No	173.00
11	All type Tube light fittings/MV/SV/MH fittings.	1	No	24.00
12	All types of Air circulators/Pedestal Type Air Circulators	1	No	578.00
13	All types chokes/condensors/Motor starters	1	Kg	20.00
14	Lift ropes/belt types	1	Kg	23.00
15	All types of electric Motors	1	HP	393.00
16	All types of water pumpsets	1	HP	393.00
17	All types of compressors	1	HP	578.00
18	All Types of AC units (window)	1	No	2079.00
19	All Types of AC units (Split ACs) ODU	1	No	2668.00
20	All Types of Indoor units of Split Acs	1	No	924.00
21	Copper piping of Acs	1	Kg	156.00
22	water cooler instant type	1	No	1040.00
23	Water cooler storage type	1	Ltr	46.00
24	Refrigerator upto 165 Ltr	1	No	1677.00
25	Refrigerator above 165 Ltr	1	No	2310.00
26	Exhaust fans 9"	1	No	173.00
27	Exhaust fans 12"	1	No	231.00

S.No	Dismantled item :	Unit		Scheduled Rate
28	Exhaust fan 15"	1	No	381.00
29	Exhaust fan 18"	1	No	462.00
30	Exhaust Fan 24"	1	No	578.00
31	Air cooler of any size without fan	1	No	578.00
32	Air cooler of any size with fan	1	No	924.00
33	Transformer Oil	1	Ltr	6.00
34	DG Set	1	KVA	578.00
35	Transformer	1	KVA	231.00
36	EPABX system	1	No	924.00
37	Telephone instrument	1	No	58.00
38	Water Purifier	1	No	92.00
39	Invertor/UPS	1	KVA	116.00
40	Voltage stabilizer	1	KVA	116.00
41	Amplifier small	1	No	462.00
42	Amplifier Big	1	No	520.00
43	Mikes	1	No	81.00
	Note: Rates of items which are not covered under above List should be calculated on the basis of materials / equipment's considering its site condition and prevailing market rates and approval should be taken from the concerned Superintending Engineer(Electrical)			
	Dismantling Rates			
1	Dismantling the existing ceiling fan / exhaust fan / cabin fan for clearing the site.	1	No	19.00
2	Dismantling the existing steel pole / RS joist pole / Girder with bracket clamps, insulators or stay from the cement concrete foundation clearing the site, refilling the pit etc.	1	No	404.00
3	Dismantling the existing tube light / SV lamp / MV lamp and making the site clear.	1	No	19.00
4	Dismantling the existing geyser and making the site clear.	1	No	58.00
5	Dismantling Light / Fan / Separate socket wiring with casing / conduit / batten complete with all accessories and clearing the site duly removing the gutties and refilling the holes with cement mortar and painting with match colour of wall and ceiling.	1	No	23.00
6	Dismantling Light / Fan / Separate socket wiring with casing / conduit / batten complete with all accessories and clearing the site.	1	No	12.00
7	Dismantling the existing armoured / unarmoured cable, single / multi core cable of sub main, main circuit of any system of wiring including coiling.	1	Mtr	8.00
8	Dismantling the existing armoured / unarmoured underground cable.	1	Mtr	16.00
9	Dismantling the DBs and TPN switches	1	No	23.00

PART-IV

PUBLIC HEALTH WORKS

PART-IV INDEX

Public Health Works

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2	Materials	454	537

PUBLIC HEALTH ITEMS

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
1	RATES OF LABOUR		
	1. Caulkar	Per Day	As per Labour rates of SoR
	2. Plumber 1st Class	Per Day	
	3. Plumber 2nd Class	Per Day	
	4. Sewer Cleaner	Per Day	
	5. Well Sinker	Per Day	
	6. Pipe line Fitter 1st Class	Per Day	
	7. Pipe line Fitter 2nd Class	Per Day	
	8. Pump Operator	Per Day	
	9. Bore Mechanic	Per Day	
	10. Light Vehicle Driver	Per Day	
	Note: The rate at relevant item in common SoR is applicable for occasional employment.		
2	RATES FOR EARTH WORK :		
a.	Earth work excavation in all types soils for pipe lines, for drainage and water supply, where the depth is more than 1.5 times the width.		To follow the relevant items of Irrigation work items as per Standard data
b.	Earth work excavation in all types soils for pipe lines, for drainage and water supply, where the depth is less than 1.5 times the width.		
c.	Earth work excavation in all types soils for open trenches, for valve pits, inspection chambers, etc.		
3.	Excavation of pipe line trenches for drainage and water supply		To follow the relevant items of Irrigation work items as per Standard data
a.	in rock requiring blasting with initial lead and lift including cost of blasting materials where the depth is more than 1.5 times the width, in places where there is no habitation.		
b.	Excavation of pipe line trenches for drainage and water supply in rock requiring blasting with initial lead and lift including cost of blasting materials where the depth is less than 1.5 times the width, in places where there is no habitation.		
c.	Cutting rock for pipe line trenches by hammers, knuckles and chisels including stacking where the depth is 1.5 times or more than the width.		
d.	Cutting rock for pipe line trenches by hammers, knuckles and chisels including stacking where the depth is less than 1.5 times the width.		
e.	Cutting rock for works other than pipe lines trenches by hammers, knuckles and chisels including stacking.		
f.	For controlled blasting at restricted places		
	NOTE :- Rock should be measured in solids. In case it is not possible, stacks should be made in which case 40% for voids to be deducted from the stack measurements.		
4	Loading or unloading materials such as C.I. Pipes, PVC Pipes, AC Pressure Pipes, DI Pipes, SW Pipes, PVC Pipes, A.C/Specials less than 300 mm dia upto 4 m in length including stacking.		
a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	To follow as per Standard data
b.	A.C. Pipes & Specials	Per Tonne	
c.	Stoneware pipes & Specials	Per Tonne	
d.	P.V.C. Pipes and fittings	Per Tonne	
5	Loading or unloading materials such as C.I. Pipes, DI pipes,		

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
	SW pipes, AC pressure pipes & fittings/ specials from 300 mm to 600 mm dia upto 4 m in length including stacking.		
a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	To follow as per Standard data
b.	A.C. Pipes & Specials	Per Tonne	
c.	Stoneware pipes & Specials	Per Tonne	
6	Loading or unloading materials such as C.I. Pipes, DI pipes, PVC pipes, AC pipes less than 300 mm dia, above 4 m in length including stacking.		
a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	To follow as per Standard data
b.	A.C. Pipes & Specials	Per Tonne	
c.	P.V.C. Pipes and fittings	Per Tonne	
7	Loading or unloading materials such as C.I. Pipes, DI pipes, AC pipes from 300 mm to 600 mm above 4 m in length including stacking.		
a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	To follow as per Standard data
b.	A.C. Pipes & Specials	Per Tonne	
	Note:- For loading and unloading the above materials at Railway Stations, the rates may be adopted based on the competitive quotations or the hammalae charges if prevailing.		
8.	Lowering C.I. / D.I. Pipes (all classes) and specials (fittings) with s/s ends carefully into trenches and laying them true to alignment and gradient including all sundries but excluding cost and conveyance of pipes from source of supply (Ref to specifications. BIS No.3114/1994)		
a.			
	Diameter of Pipe/Fittings in mm :		
	80mm to 1000mm dia	Per Metre	To follow as per Standard data
	1100mm dia	Per Metre	1401.00
	1200mm dia	Per Metre	1605.00
8.	Lowering C.I. / D.I. Pipes (all classes) and specials (fittings) with flanged ends carefully into trench and laying them true to alignment and gradient including all sundries but excluding cost and conveyance of pipes from source of supply. (Reference to specifications. BIS No.3114/1994).		
b.			
	Diameter of Pipe/Fittings in mm :		
	80mm to 750mm dia		To follow as per Standard data
	800mm dia	Per Metre	671.00
	900mm dia	Per Metre	871.00
	1000mm dia	Per Metre	1132.00
	1100mm dia	Per Metre	1395.00
	1200mm dia	Per Metre	1659.00
9.	Jointing CI /DI pipes & fittings with S/S ends including cost of pig lead, Spun yarn and sundries such as cost of fuel for		
a.			

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
	melting lead, filling with water with lead up to 500m and testing to required pressure complete. (Reference to specifications. BIS No.3114/94/12288:1997).		
	Diameter of Pipe/Fittings in mm :		
	80mm to 800mm		To follow as per Standard data
	900mm dia	Each Joint	15414.00
	1000mm dia	Each Joint	17262.00
	1100mm dia	Each Joint	19084.00
	1200mm dia	Each Joint	20879.00
9. b.	Jointing C.I/ D.I. pipes and fittings with rubber gasket (push-on-joint), excluding the cost of the gasket but including all sundries filling with water, with a water lead up to 500m and testing to required pressure, etc. complete (Reference to specifications IS 3114/1994/12888/1997)		
	Diameter of Pipe/Fittings in mm :		
	80mm to 1000mm dia	Each Joint	To follow as per Standard data
	1100mm dia	Each Joint	1107.00
	1200mm dia	Each Joint	1198.00
10	Jointing CI/DI pipes, fittings and valves with flanged ends including cost of jointing materials such as bolts, rubber insertion, white lead including filling with water, with lead up to 500 meters and testing to required pressure complete. (Reference to specifications. BIS No.3114/1994.)		
	Diameter of pipe/Fittings/ valve in mm :		
	80mm to 750mm dia	Each Joint	To follow as per Standard data
	800mm dia	Each Joint	6168.00
	900mm dia	Each Joint	7319.00
	1000mm dia	Each Joint	8474.00
	1100mm dia	Each Joint	9653.00
	1200mm dia	Each Joint	10867.00
11a	Lowering the RCC plain ended pipes carefully into the trench laying them true to alignment and gradient, jointing RCC pipes with Cement joints including curing, the cost of jointing materials i.e., Cement Mortar (1:1.5), hemp yarn etc., and testing including filling with water with a water lead upto 500 metres as per BIS No.783/85.		
	Dia in mm	Per Metre	
	80	Per Metre	80.00
	100	Per Metre	109.00
	150	Per Metre	163.00
	200	Per Metre	217.00
	250	Per Metre	272.00
	300	Per Metre	333.00

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
	350	Per Metre	388.00
	400	Per Metre	443.00
	450	Per Metre	500.00
	500	Per Metre	554.00
	600	Per Metre	665.00
	700	Per Metre	776.00
	800	Per Metre	887.00
	900	Per Metre	996.00
	1000	Per Metre	1107.00
	1100	Per Metre	1218.00
	1200	Per Metre	1331.00
	1400	Per Metre	1552.00
	1600	Per Metre	1774.00
	1800	Per Metre	1995.00
11b	Lowering the RCC S/S pipes carefully into the ready made trenches laying them true to alignment and gradient, jointing with rubber rings and testing including filling with water lead upto 500 meters excluding cost of rubber rings as per BIS No. 783/1985.		
	80mm to 600mm	Per Metre	To follow as per Standard data
	700mm dia	Per Metre	436.00
	800mm dia	Per Metre	521.00
	900mm dia	Per Metre	625.00
	1000mm dia	Per Metre	748.00
12	Lowering and Jointing G.I. pipes and specials / fittings including excavation of trench of 0.5m width and 0.50 m depth in all soils except rock requiring blasting and refilling trenches after laying and jointing pipes and also including cost of jointing materials but excluding the cost of pipes. Reference to specifications. BIS No.783/85		
a	G.I. Pipes :Dia in mm		
	15mm to 150mm	Per Metre	To follow as per Standard data
12b	Lowering, Laying, jointing of PVC/HDPE/MDPE pipes as per BIS No.7634 part-III/75 for PVC and BIS No.7634 part-II/75 for HDPE pipes including earth work excavation, testing to hydraulic test pressure including cost of water with a water lead of 500m etc., complete, but excluding road cutting (BT/CC) charges., Complete.		
	Dia (OD) in mm		
	20mm dia	Per Metre	43.00
	25mm dia	Per Metre	44.00
	32mm dia	Per Metre	49.00
	40mm dia	Per Metre	49.00
	50mm dia	Per Metre	49.00
	(ii) If the depth of excavation is more than 0.6 m separate rates to be worked out. The above rates are excluding road cutting if any.		

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
13	Lowering and laying in ready made trench true to alignment and gradient, jointing, and testing of Stone ware pipes including cost of jointing material such as Cement Mortar (1:1) proportion and hemp yarn but excluding cost and conveyance of pipe. (Reference to specifications BIS No. 6530/72)		
	Dia of Pipes in mm .		
	100mm to 450mm	Per Metre	To follow as per Standard data
14	Lowering, laying, jointing and testing to hydraulic test pressure including cost of water with minimum water lead of 500m for UPVC pressure pipes in ready made trenches true to alignment and gradient including all sundries but excluding cost & conveyance of pipes from source of supply and jointing materials as per BIS No. 7634 - Part III - 1975.		
	Dia of Pipes in mm .		
	63mm to 315mm	Per Metre	To follow as per Standard data
15	Laying and jointing of HDPE pipes in ready made trench by butt fusion welding as per IS:7634 – part-II/1975 as amended from time to time to the alignment and gradient and testing the pipeline to the required pressure.		
	Outer Dia of pipes in MM		
	63mm dia OD	Per Metre	44.00
	75mm dia OD	Per Metre	48.00
	90mm dia OD	Per Metre	56.00
	110mm dia OD	Per Metre	69.00
	125mm dia OD	Per Metre	82.00
	140mm dia OD	Per Metre	87.00
	160mm dia OD	Per Metre	94.00
	180mm dia OD	Per Metre	103.00
	200mm dia OD	Per Metre	112.00
	225mm dia OD	Per Metre	125.00
	250mm dia OD	Per Metre	132.00
	280mm dia OD	Per Metre	145.00
	315mm dia OD	Per Metre	225.00
	355mm dia OD	Per Metre	250.00
	400mm dia OD	Per Metre	279.00
	450mm dia OD	Per Metre	310.00
16	Lowering, keeping in position and fixing C.I / D.I sluice valves (with cap / with hand wheel & Reflex valves) excluding cost of bolts, nuts, rubber insertion, sluice valve and tail pieces		To follow as per Standard data
	Dia of Valve in mm.		
	80mm to 600mm	Each	
17	Labour charges for fixing Air valves including boring the mains and threading the bore fixing nipple etc., complete.		
	Dia of Air valve in mm.		
	25mm dia	Each	To follow as per Standard
	40mm dia	Each	

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
			data
	50mm dia	Each	229.00
	80mm dia	Each	246.00
18	Labour charges for fixing Kinetic Air Valves with isolating Sluice valves, Double Air valves/ Air Cushion valve excluding cost of jointing materials such as bolts, nuts and rubber insertions etc., complete.		
	Dia of Air valve in mm.		
	80mm dia (Double Air valves)	Each	306.00
	100mm dia (Double Air valves)	Each	357.00
	125mm dia (Double Air valves)	Each	530.00
	150mm dia (Double Air valves)	Each	580.00
	200mm dia (Double Air valves)	Each	631.00
19	Uprooting C.I./ DI Pipes by melting the lead, loosening the joints, scraping the pipes, hoisting and keeping within a lead of 10 m but excluding earth work excavation and refilling.		
	80mm to 600mm	Per Metre	To follow as per Standard data
20	Uprooting of RCC pipes including breaking the collars, loosening the joint, separating the pipes, hoisting and keeping within a lead of 10 m but excluding earthwork excavation and refilling.		
	100mm to 300mm	Per Metre	To follow as per Standard data
21	Removing old G.I. pipes and specials / fittings and cleaning, scraping the pipes, hoisting and keeping with in 50m lead but excluding earth work excavation of trenches and refilling.		
	Dia of Pipes in mm		
	15mm to 50mm	Per Metre	To follow as per Standard data
22	Cutting C.I./ DI Pipes without water in mains.		
	Dia of Pipes in mm		
	80mm to 600mm	Each cut	To follow as per Standard data
	700mm dia	Each cut	674.00
	750mm dia	Each cut	727.00
	800mm dia	Each cut	773.00
	900mm dia	Each cut	867.00
	1000mm dia	Each cut	963.00
	1100mm dia	Each cut	1063.00
	1200mm dia	Each cut	1160.00
23	Cutting A.C. Pipes without water in mains.		
	Dia of Pipes in mm		
	80mm dia	Each cut	40.00
	100mm dia	Each cut	40.00

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
	125mm dia	Each cut	40.00
	150mm dia	Each cut	40.00
	200mm dia	Each cut	42.00
	250mm dia	Each cut	68.00
	300mm dia	Each cut	68.00
	350mm dia	Each cut	84.00
	400mm dia	Each cut	94.00
	450mm dia	Each cut	116.00
	500mm dia	Each cut	131.00
	600mm dia	Each cut	142.00
24	Drilling and tapping CI/ DI / GI Main and fixing brass screw down ferrule and plug.		
	10 mm to 20mm	Each Tapping	To follow as per Standard data
	25 mm to 40mm	Each Tapping	
25 (a)	Cutting road surface including stacking of excavated materials for pipe line trench work.		
	i) Cutting B.T.Road surface	1 Cum	1127.00
	ii) Cutting C.C.Road Surface	1 Cum	2345.00
	iii) Cutting Water Bound Macadam/Wet Mix Macadam Road.	1 Cum	288.00
25 (b)	Vaccum dewatering of freshly laid cement concrete floor using 100% air tight suction mat of suitable size and length,vaccum pump to maintain vaccum pressure 0.7-0.8 atmosphere as per the standard procedure,floating with power floater,vibrating using Screed vibrator, mechanical trowelling, finishing with sound edges and corners,including hire and operational charges of machinery ,labour,fuel etc,complete for finished item as directed by the Engineer-in-Charge.	1 Sqm	75.00
25 (c)	Mechanical trowelling, finishing with sound edges and corners, including hire and operational charges of machinery, labour, fuel etc, complete for finished item of work as directed by Engineer-in-Charge	1 Sqm	41.00
26	Bailing out water		
	a) Bailing out water from the pipe line trenches with oil engine driven pumpsets, including hire charges, fuel charges and wages for Driver and Helper.	HP-Hour	To follow as per I&CAD SoR
	b) Bailing out water from the pipe line trenches with Electric Driven pumpset including hire charges, current charges and wages for Driver and Helper.	HP-Hour	
27	Shoring and strutting of trenches for water and sewer main.		
	a) Single Staging from (0 to 2.5 Mts.)	1 Sqm of Shoring area	To follow as per Standard data
	b) Double staging from (2.5 m to 4.5 Mts.)	1 Sqm of Shoring area	
28	Barricading, hoarding, lighting and watching etc., for water supply and sewerage works for trenches.	1 RMT	To follow as per Standard data
29	Excavation of trenches for infiltration galleries, syphon lines		

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
	and connecting mains in all soils under water including all leads, lifts, shoring, strutting, bailing out water and removal of shoring and strutting materials, after completion of pipe line work.		
	a) 0 to 1 m deep under water.	1 Cum	1434.00
	b) 1 to 2 m deep under water.	1 Cum	2053.00
	c) 2 to 5 m deep under water.	1 Cum	3082.00
	d) Beyond 5 m deep under water for every additional 1 m depth over item 'c'	1 Cum	589.00
	NOTE:- The above rates do not include rock requiring blasting or chiselling.		
30	Laying and jointing perforated RCC pipes inclusive of bailing out water and jointing with Cement fillets and all other incidental charges for infiltration gallery inclusive of bailing out water by pumping to keep the trench reasonably dry to facilitate the work excluding cost of perforated pipes and collars.	Per Metre	50.00
	per every 25 mm dia/mtr.		
31	Centring and scaffolding charges for RCC members including all materials and labour charges for forming and dismantling.		
a)	for R C C Elevated Service Reservoir of staging up to 15 metre below L W L.		
	1) Slabs for thickness (150 mm to 300 mm)	One Sqm of Centering area	4404.00
	2) Slabs for thickness above 300 mm, extra for every 50 mm thickness.		527.00
	3) Side walls curved surfaces including both sides of wall per Sqm of member area.		3326.00
	4) Side wall straight surfaces including both sides of wall per Sqm of member area.		2962.00
	5) Top dome	One Sqm of Centering area	1813.00
	6) Bottom Dome.		3607.00
	7) Roof Slab.		995.00
	8) Columns, braces and beams		1484.00
	9) Circular braces, ring beams & circular column.		1629.00
	10) Conical Slab 150 mm to 300 mm thickness		4612.00
	11) Conical Slab for above 300 mm thickness, extra for every 50mm thickness		585.00
	Note:- For RCC ELSR of staging above 15 m, the % increase in these rates shall be as follows. above 15 m - up to 18 m --- 9% above 18 m - up to 21m --- 15% above 21m - up to 24 m --- 21% above 24 m - up to 27m --- 27% above 27m --- 30%		
b)	For Ground level works/ Below the Ground level works :-		
	1) Foundations	1 Cum	To follow as per R&B SoR
	2) Slabs	1 Sqm	
	3) Beams & Lintels	1 Cum	
	4) Sun shades	1 Sqm	
	5) RCC vertical walls of plane surface including both sides of wall per Sqm of member area	1 Sqm of centering area	1218.00
	6) RCC vertical walls of circular faces including both sides of		1552.00

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
	wall per Sqm of member area.		
	7) Dome		1707.00
	NOTE: The above centering charges are applicable for water retaining structures only.		
c)	Centering and scaffolding charges including labour charges for erection and dismantling of shuttering and scaffolding for CC /RCC side walls of Culverts / Storm water drains /Nalas (where sewage/Sullage flows through them and not for normal / routine nature of drain works)	1 Sqm	367.00
32	Lift or delift of materials :		
	a) Lifting of Cement concrete for RCC Elevated/Ground reservoir. For every 3m height or part thereof over the initial lift of 3 m. Rate/1 Cum.	1 Cum	185.00
	b) Delifting the materials such as stones, concrete etc., for concrete below ground level for construction of ground level reservoirs, inspection wells, test wells and sump wells etc., for every 1 m depth or part thereof beyond the initial depth of 4 meters from ground level. Rate / 1 cum	1 Cum	57.00
33	Labour charges for fixing ventilating shafts complete with all accessories.	Each	To follow as per Standard data
34	Labour charges for fixing water closets including fixing of foot rests (for all sizes).	Each	Relevant Building SoR items
35	Labour charges for fixing of flushing cistern including fixing of flush pipes, lead pipe, jointing etc., complete	Each	
36	Labour charges for fixing wash hand basin including fixing of inlet and waste pipe connections etc., complete	Each	
37	Fixing urinal with inlet and waste pipe connections etc., complete.	Each	
38	Refilling the trench for pipe line with excavated earth including watering and tamping etc., complete	10 Cum	
39(a)	Extra allowance for isolated scattered works viz., valve pits, public fountains, meter pits and manholes, etc., complete for maintenance works including cost of material.	Each	50% extra over the basic cost of Work.
(b)	Repairs to the existing mains, interconnections, replacement of valves/specials etc., including the cutting ,jointing, bailing out of water, drying, earth work excavation etc., complete, but excluding cost of pipes, valves and specials.		150% extra over the basic cost of work
40	Removal of wet silt and sludge from sullage drains,storm water drains with aid of baskets and vessels, etc with initial lift of 3 m and lead of 50 m.	1 Cum	
	Labour component		458.00
	Implements		49.00
41	Well sinking in sandy and other loose soils under water either by manual labour, divers, or dredgers, weighting the top of staining to assist sinking etc., including dewatering and other incidental charges such as hire charges for mechanical equipment etc.,		
	Upto 2 m below GL/m	Per metre	To adopt as per Standard
	From 2 to 4 m below GL/m	Per metre	

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
	From 4 to 6 m below GL/m	Per metre	data
	From 6 to 8 m below GL/m	Per metre	
	From 8 to 10 m below GL/m	Per metre	
	Note:-Below 10 m for every metre depth or part thereof add Rs.250/- per m. For higher dia, observed data is to be prepared and got approved.		
42	Sinking in Hard strata other than rock but in soils like limestone, gravel, clay under water including, pumping dewatering, hire charges for mechanical equipment etc., complete.		Observed Data
43	Rates for OHSRs/ELSRs including fixtures with a staging of 15 m, with seismic analysis Zone -II and excluding Seigniorage charges.		
a	500 Kilo litres	Per litre	18.87
b	1000 Kilo litres	Per litre	15.35
c	1500 Kilo litres	Per litre	14.17
d	2000 Kilo litres	Per litre	13.39
e	2500 Kilo litres	Per litre	12.69
	1) The above rates are arrived with base rate of Cement Rs.5200/- per MT & Steel for Rs.60,000/- per MT (Fe-500/500D/550D from Primary/Category-I Producers) for the month of May-2023		
	2) All concrete components shall be designed with minimum of M30 Design Mix.		
	3) For intermediate capacities proportional rates shall be adopted.		
	4) The foundations shall be designed for Annular Raft Footings. The above rates are applicable for Elevated Level Services Reservoirs / OHSRs for SBC of 15 T/Sqm.		
	a) For every decrease of 2.50 T/Sqm of SBC, the rate shall be increased by 2.5% on basic rate .		
	b) For every increase of 2.5 T/Sqm of SBC, the rate shall be decreased by 1.0% on basic rate up to 20 T/Sqm.		
	c) For SBC below 10T/sqm , solid raft shall be provided and for solid raft the rate shall be increased by 10% on basic rates		
	5) For staging less than 15 m, the rate shall be decreased by Rs.0.05 paise on basic rate per litre per every metre decrease in staging.		
	6) For staging above 15 m, the rate shall be increased by Rs.0.10 paise on basic rate per litre per every metre additional staging.		
	7) The above rates shall be increased / decreased due to increase/decrease in the cost of Cement by $\text{Basic rate} \times (\text{Rc}-5200)/5200 \times 0.069$		
	$\text{Rc} = \text{Rate of Cement (Rs per MT) at the time of preparation of estimate.}$		
	8) The above rates shall be increased / decreased due to increase/decrease in the cost of Steel by $\text{Basic rate} \times (\text{Rs}-60000)/60000 \times 0.135$		
	$\text{Rs} = \text{Rate of Steel (Rs. per MT) (Fe-500/500D/550D from Primary/Category-I Producers) at the time of preparation of}$		

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
	estimate.		
	The above formula applicable only for preparation of estimate. The price adjustment shall be adopted on the actual consumption of Steel and Cement.		
	9 a) Rate inclusive of three coats of epoxy paint Food Grade of best quality to inner surface of the Reservoir including roof.		
	b) Rate inclusive of 2 coats of weather proof emulsion painting for external surfaces over one coat of primer of approved make, lettering, all required fixtures, Pipes, Pipe specials, valves of DI material, Valve chambers etc., for pipe connections including cost of pipes, specials and valves as per departmental directions and drawings.		
	10) The above rates adopted for a wind pressure upto "250 kg/sq m". For every 50 kg/sqm decrease in wind pressure, the rate shall be decreased by 2.5%		
	11.a)The Basic rate is adopted by considering the design for Seismic forces for Zone-II only of seismic zones.		
	b) The basic rates shall be increased by 15 % for Zone-III of seismic zones.		
	12. The ELSR/OHSR shall be designed with minimum of two rows of columns for capacities from 500 KL & upto 1000KL.		
	13. The ELSR/OHSR shall be designed with minimum of three rows of columns for capacities above 1000KL.		
	14) The basic rate is inclusive of following fixtures		
	i) Pipe connections & Specials with D.I materials		
	a) All pipe connections for Inlet, Out let (2 Nos), Over Flow, Scour pipes shall be provided with D/F DI material.		
	b) The Valves for above pipe connections also shall be of DI material of PN 16		
	c) All specials such as Bends, Tees, Puddle pipes, Reducers, Duckfoot Bends, Bell mouths etc., shall be of DI material.		
	II) The sizes of the verticals for ELSR/OHSR shall be:		
	a) For 500 KL to 750 KL ELSRs Inlet Pipe -Not less than 300mm dia. Out let Pipe -Not less than 350mm dia and DI Valves 02 Nos Over Flow pipe -Not less than 350m dia Scour Pipe -Not less than 200mm dia		
	b) For 800 KL to 1500 KLELSRs Inlet Pipe -Not less than 400mm dia. Out let Pipe -Not less than 450mm dia and DI Valves 02 Nos Over Flow pipe -Not less than 450m dia Scour Pipe -Not less than 200mm dia		
	c) For above 1500 KL to 2500 KL ELSRs Inlet Pipe -Not less than 400mm dia. Out let Pipe -Not less than 500mm dia and DI Valves 02 Nos Over Flow pipe -Not less than 500m dia Scour Pipe - Not less than 200mm dia		
	iii) Manhole Frames & Covers		
	a) All man hole Frames & Covers shall be made of CI/DI materials with min. size of 0.60mX 0.60m - For Roof & Valve Chambers.		
	iv) CI/D.I Double Swan neck ventilators (min.of 150mm dia)		

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
	shall be provided in top dome and slab with mosquito/fly proof nets - 8Nos minimum.		
	v) RCC Finial ventilator with fly/bird protection with Copper or Stainless Steel mesh - 1 No.		
	vi) RCC precast ladders of 0.60 m width - 2 Nos.		
	vii) RCC dog legged stair case of 1.00 m flight width and 1.20 m landing width hand railing of 1.2 m height by using Stainless Steel pipe of grade 304, with top railing of 40mm dia pipe, middle railing of 25mm dia and verticals with 40mm dia at an interval not more than 1.00m c/c. - 1 No		
	viii) The staircase shall be enclosed with brick masonry walls on three side and collapsible MS gate on front side up to 1 st brace level, to prevent unauthorized entry.		
	ix) Construction of R.C.C valve chambers as per Standard Drawings with RCC cover slab fixed with CI/DI manhole Frame & Cover with lock and Key arrangement. The Mix shall not be less than VRCC M 20 grade with 150mm thick side walls, 150mm thick top slab, 150mm thick base slab over base course of 100mm thick (1:4:8) prop.		
	x) Balcony of 1.00 m width at floor slab level / middle ring beam level by using Stainless Steel pipe of grade 304 hand railing up to 1.20 m height, with top railing of 40mm dia pipe, middle railing of 25mm dia and verticals with 40mm dia at an interval not more than 1.00m c/c.		
	xi) Water Level Indicator of reputed make - Digital type (1 No) and Conventional type (1 No)		
	xii) Lightning Arrestor with all its accessories complete including earthing, with relevant IS Codes - 1 No.		
44	Rates for OHSRs/ELSRs with a staging of 12 m for Zone-II Seismic and excluding Seigniorage charges.		
a	Upto 10,000 Litres capacity	Per litre	90.12
b	20,000 Litres capacity	Per litre	53.58
c	40,000 Litres capacity	Per litre	43.14
d	60,000 Litres capacity	Per litre	30.74
e	1,00,000 Litres capacity	Per litre	27.17
f	1,20,000 Litres capacity	Per litre	23.76
g	1,50,000 Litres capacity	Per litre	21.59
h	2,00,000 Litres capacity	Per litre	20.36
i	2,50,000 Litres capacity	Per litre	19.75
j	3,00,000 Litres capacity	Per litre	19.10
k	4,00,000 Litres capacity	Per litre	16.69
l	4,50,000 Litres capacity	Per litre	14.88
	NOTE: -1) For intermediate ranges proportional rates may be adopted. All VRCC minimum of M30 grade design mix.		
	2) The above rates are applicable for Elevated Level Services Reservoirs / OHSRs with Raft Foundation and a rate of Rs.5200/- per tonne for Cement and Rs.60000/- per tonne for Steel.		
	3) For every metre of staging less than 12 m, the rate shall be reduced by Rs.0.05 paise per litre per every metre of difference in staging.		
	4) For every metre of staging above 12 m, the rate shall be		

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
	increase by Rs.0.10 paise per litre per every metre of additional in staging.		
	5)The above rates shall be increased / decreased due to increase / decrease in the cost of Cement by Basic Rate x (Rc-5200)/5200 x 0.069 Rc = Rate of Cement (Rs per MT) at the time of preparation of estimate		
	6)The above rates shall be increased / decreased due to increase / decrease in the cost of Steel by Basic Rate x (Rs-60000)/60000 x 0.135 Rs = Rate of Steel (Rs per MT) (Fe-500/500D/550D from Primary/Category-I Producers)at the time of preparation of estimate.		
	The above formula applicable only for preparation of estimate. The price adjustment shall be adopted on the actual consumption of Steel and Cement.		
	7) Rate inclusive of three coats of food grade epoxy paint to inner surface of the reservoir including roof dome.		
	8) The above rates be adopted for estimate purposes for construction of ELSR for a finished work including 2 coats of weather proof emulsion painting for external surfaces over one coat of primer of approved make, lettering, all required fixtures, pipes, bends, valves etc., for pipe connections but excluding cost of pipes, bends and valves as per departmental designs and drawings.		
	9) The above rates are applicable for wind pressures upto 250 kg / sq m. For decrease in wind pressure the rate has to be decreased by 2.5% per every 50 kg/sqm. If the ELSR / OHSR is to be designed for seismic forces also, cost shall be arrived by working out detailed quantities based on the designs.		
	10) For Tribal/Agency area, the above rates shall be increased by 5%.		
	11)If the ELSR is to be designed for seismic forces a) The above rates are applied upto Zone-II earth quake. b) for Zone-III earth quake the above rates are to be increased by 15%.		
	12) Fixtures include :		
	a) RCC or Aluminium ladder inside 0.60 m wide.		
	b) spiral staircase on the outside shall be provided upto 200KL ELSR. Above 200KL ELSR Capacity dog legged staircase shall be provided with staircase flight width of 1.0mts and landing width of 1.20m. S.S railing to stair case upto 1.2m height.		
	c) Lightning arrestor, including conductor and earthing etc with relevant IS codes.		
	d) RCC ventilators with copper or stainless Steel fly proof mesh.		
	e) D.I Manholes frame and cover 0.60x0.60 m as per IS specifications (light duty) - 2 Nos.		
	f) Water level indicator of good quality with ebonite/ copper float approved pattern - 1 No.		
	g) The ladder shall be with Aluminium and Verticals with HDPE of 10kg/Sqcm shall be provided for single column OHSRs only.		

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
	h) The increase in staging shall be at 1.0mt interval.		
	i)The railing provided to the gallery and stair case shall be with stainless Steel of grade 304 for a height of 1.20m.		
	j)The dog legged staircase shall be enclosed with brick/CRS wall on three sides and front side with PVC door of standard make up to 1st brace level from ground level to prevent unauthorized entry.		
	k) D.I swan neck ventilators shall be provided in top dome and slab-4Nos minimum.		
	l) The above rates are exclusive of all inlet, outlet connections, valves and bolts & nuts but including labour charges for hoisting, jointing with rubber insertion, nuts and bolts. All valves near inlet, outlet and for scour of ELSRs shall be D.I valves.		
45	Construction of Rapid Gravity Filtration Plant including all Civil, Mechanical and Electrical works using sand as filter media, duly following relevant IS codes in the design of plant components including trial running for 90 days etc., complete and excluding Seigniorage charges.		
	1) 2.0 MLD	Per litre	5.08
	2) 5.0 MLD	Per litre	4.06
	3) 10.0 MLD	Per litre	3.47
	4) 20.0 MLD	Per litre	2.98
	5) 30.00 MLD and above.	Per litre	2.64
	NOTE :-		
	a) For intermediate capacities proportional rates may be adopted		
	b) The above rates are applicable with Cement @ rate of Rs.5200/-MT and Steel of Rs.60000/MT (Fe-500/500D/550D from Primary/Category-I Producers)		
	c)The above rates shall be increased / decreased due to increase / decrease in the cost of Cement by Basic Rate x (Rc-5200)/5200 x 0.069 Rc = Rate of Cement (Rs per MT) at the time of preparation of estimate only		
	d)The above rates shall be increased / decreased due to increase / decrease in the cost of Steel by Basic Rate x (Rs-60000)/60000 x 0.135 Rs = Rate of Steel (Rs per MT) (Fe-500/500D/550D from Primary/Category-I Producers) at the time of preparation of estimate.		
	The above formula applicable only for preparation of estimate. The price adjustment shall be adopted on the actual consumption of Steel and Cement.		
	The components of the filtration plant will include the following		
	A) Civil Works (All works of VRCC minimum of M30 design mix)		
	1) Stilling Chamber including Aeration cascade		
	2) Pre-Settling tank shall be provided for 30 MLD and above capacities of WTP for a minimum of 1 hour capacity.		
	3)Raw water channel with Stainless Steel Weir of SS304L		

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
	Grade material and also with digital flow meters.		
	4) Flash Mixer chamber with Flash mixing arrangements including SS shaft & SS Blades with gear wheel arrangements etc, Using 304L Grade Steel.		
	5) Clariflocculator / Flocculation tanks with the components of central driven circular clarifier with scrapper & bridge arrangements made with Stainless Steel Grade 304 L tubes /angulars for durability & chemical resistant with wheel arrangements etc,.		
	6) Filter house, Chemical house, Alum store, Laboratory room , Chlorination plant room, toilet etc. (All structures shall be provided with RCC roof only).Chemical house & Chlorinator rooms are to be isolated.		
	7) Wash water tank of suitable capacity shall be constructed independently		
	8) All the Doors and Windows shall be of UPVC. The entrance door shall be minimum size of 2.40 X 2.40 mts.		
	9) All pipes and valves in Plant shall be of D.I. materials. All the Connecting pipes of the plant components such as from Flash mixer to Clariflocculator/ Clarifier/Flocculation tank, to Filter beds, sludge disposal pipes shall be of D.I. material. The size of sludge disposal pipe shall be minimum of 450 mm dia with D.I D/F pipe.		
	10) The Pipe gallery way for Clear water/ Back wash water/ pipe connections shall be sufficiently spaced for easy operation, maintenance and inspection .		
	11) The bottom level of the wash water control chamber must be above G.L so as to dispose the wash water and sludge from Clariflocculator by gravity to disposal point.		
	Additional specifications		
	12) Railing for all the components (Clariflocculator, Filter House, Staircase etc.,) shall be provided with Stainless Steel of grade 304 for a height of 1.00m, with 40mm dia pipe for top horizontals,25mm dia for middle row and 40mm dia verticals spaced at interval of not more than 1.00m c/c.		
	13) Inspection / Path ways in filter beds : Middle pathway: Minimum of 1.50m,Side pathway: Minimum of 1.20m.		
	14) Flooring in the buildings (Filter house, Chemical House, Chlorinator Room, Laboratory) shall be provided with Non-skid tiles of approved make & quality , as per standard specifications. Dadoing shall be provided upto 1.80mts from floor level in chemical room and Chlorination room.		
	15) The basement of the Filtration plant building shall be minimum of 0.75m above the existing nearby Road top level.		
	16) Minimum head room of 2.00m shall be provided , at the alum mixing chambers in alum store for inspection & maintenance.		
	17) The minimum width of entrance hall for the Filter House shall be 4.50m , and Laboratory of min size .of 3.30 X 4.50m .		
	18) High efficient Air Blowers of standard make shall be installed to the design requirement with low noise pollution , environmental pollution as per PCB guide lines & Testing of		

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
	blowers as per I.S norms at site.		
	19) UPVC pipes shall be provided for water drain. Filter pipe manifolds shall be assembled with HDPE pipes.		
	20) Alum storage capacity shall be designed for minimum period of 90 days. Consumables shall be provided for 2115 Running Hours of WTP.		
	21A) Chlorinator : Vacuum type chlorinator shall be provided with following specifications: a) Vacuum operated solution feed type Vacuum Regulator, Rotameter, Rate setting Valve, built-in NRV, Gas Overflow out let by manifolding to mount the system with the unit. b) The unit shall consists of Ejector with necessary accessories such as Check Valve, Drain Valve and Vacuum relief Valves - for control of chlorinator dosage. c) The Accessories and manifolds shall be chlorine resistant and made of carbon Steel seamless pipes, copper tube with brass fittings of suitable size & dimensions, with diaphragm sealed chlorine pressure gauge arrangements.		
	d) Water Booster Pump of pumping capacity ranging from 2 cum/hr to 12 cum/hr, with Head ranging from 16 to 35 MWC e) The water & solution carrying pipes shall be made of UPVC material of suitable size incl. all specials such as Tee's , Bends, couplings & NRVs and also Pressure Gauges of suitable range. f) Chlorine Gas detector with alarm indicator. The installation includes all necessary accessories, Civil and Mechanical works, manifold header installations, injector fixing, connection with UPVC pipes, solution pipings, fixing of motors as per standard specifications and commissioning of Chlorination plant to the required demand, with a defect liability period of 1 year. The chlorinator may be of any reputed make or any make of Metito/Toshocow-Jesco/Industrial devices.		
	g) Life breathing operators.		
	h) Chlorine escape BA Set.		
	i) 2 to 10 MLD Plants - 1Kg/hr Chlorinator Rate .073 paisa on basic rate of WTP-for Post Chlorination		
	ii) 10 MLD to 20 MLD Plants - 2 Kg/hr Chlorinator Rate .033 paisa on basic rate of WTP-for Post Chlorination		
	iii) 20 MLD to 50 MLD Plants - 5 Kg/hr Chlorinator Rate .015 paisa on basic rate of WTP-for Post Chlorination		
	B) Mechanical Equipment		
	1) Alum dosing equipment with SS 304 material made stirrers & paddles for chemical resistance. (Alum tanks must be bound with corrosion resistant material (HDPE Lining, Bitumen Coating, tiles etc)		
	2) Flash mixer equipment with SS 304 material made stirrers & paddles for chemical resistance.		
	3) Filtration plant equipment instrumentation and piping.		
	4) Clariflocculation equipment (with stainless Steel blades) with rotating bridge arrangement etc., The equipment consists of		

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
	following components a) Flocculator Drive Mechanisms These will consist of suitable H.P geared electric motor mounted on M S Frame work on bridge platform. b) Flocculating Mechanisms and raking in the flocculation compartment .These will consist of vertical shafts and arms, paddles, guides, bearings etc with stainless Steel bush bearing for the shafts at the bottom. c) Mechanism for raking in clarifier compartment.		
	d) Revolving Bridge This will be made of suitable sections with torsion proof fabrication of required length and width of 1.22 m. The Bridge will have an outer travelling trolley. The walk way will be 1.22 m wide and shall have chequered plates. The web of the bridge structure shall perform the function of hand railing on both the sides also. The scarping plates will be fitted with the scrapper frame work with hinges and stainless Steel pins and will be fitted 12 mm thick rubber edging . The scrapers will be so adjusted as to ensure smooth and even scarping of the floor. e) Bridge Drive The Bridge will be driven by an electrically operated geared motor with suitable H.P. f) Bridge Drive Mechanisms This will consist of two nos. of Steel wheels driven by electric geared motor. The wheels will be fitted on the trolley with necessary bearings, pedestals etc . These wheels travel along the periphery of the clariflocculator tank on rails. g) Electrical Arrangements These will consist of electrical cables PVC insulated with copper wires run from the main switch board provided in the chemical store and run under the tank and along the central column. The cable will be connected to the central slip arrangements. The electric geared motors will be controlled from the control panel fitted on the bridge with necessary weather proof housing cabinet with necessary cables, wires, starters , switches etc .		
	5) Stainless Steel wheel shall be provided for the bridge clariflocculator.		
	6) Wash water tank fittings and pumpsets with 100% stand by.		
	7)Air blower with motor 100% stand by and pipe connections. Air Scouring type with twin lobe rotary having required capacity and pressure as per hydraulic design having following components: Blower, Base Frame for blower and motor, Foundation Bolts, Nuts and Washers, Slide Rail and Motor Bolts, V Belts, Pulley, Guard, Suction Silencer, Discharge Silencer, Safety Relief Valve and Non Return Valve , Companion Flange, Interconnection Pipe, Flexible Bellow, Safety Valve and T Connection, First Fill of Lubricants, Anti vibration Pads, Acoustic Enclosure and Motor : CGL/KEC/ABB make.		
	A) Materials of Construction : a) Housing : C.I IS 201 FG 260		

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
	b) Rotor Shaft : S G IRON c) Shaft : EN 19 forged and heat treated d) Timing Gears : Cast Alloy Steel (20 microns) forged and heat treated. e) Pulley , Gear side , plates and covers : C.I IS 210 FG 260 f) V Belts : Reinforced rubber g) Base plate : MS Enamel Painted h) Belt Guard : MS Enamel Painted i) Fasteners : As per IS 1363/ IS 1367		
	8)Spares & Tools and the same shall be handed over after 2 years defect liability period.		
	9)Gaseous Chlorination with cylinders has to be provided with protection measures.		
	C) Electrical Equipment		
	1) Necessary power supply wiring to motors and switches bus bar connections as per IE Rules.		
	2) Internal wiring and illumination and fittings and fixtures for internal and external lighting exhaust fans, ceiling fans etc.		
	3) Erecting mechanical and electrical equipment, trial run for 90 days 23.50 hours per day testing the treated water for efficient standards and maintenance of records and imparting training to staff.		
	4) Supply of 6 - Sets of completion plans and maintenance manual and brochures.		
	5) All cables shall be with of copper material, Cable ducts shall be covered with MS / Aluminium chequered plate.		
	6) Yard lighting shall be provided at 6 locations with required fixtures..		
	D) Equipment for Flow measurements		
	1) Equipment for Flow of Conductivity, Turbidity, Ph value, Residual Chlorine with recording & data storage facility (Computer based) & Alarm by SMS or other methods.		
	2) Off - Site Supervisory and Data Acquisition (OSSADA) system for Raw water & Clear water flows by installing Digital Flow meters to measure the flows at Raw water Channel and at each filter bed individually and combined for measuring the quantities of water treated with a facility to record and store the readings & also to send messages to the assigned designatories about the variations/ deficiencies in the flow including alerts for back wash requirements of filter beds, and recovery of data for the past 360 days. All the Digital Flow Meters & Pressure Gauges shall be provided of standard approved make.		
	Hardware:		
	i) Wall mounted Sensor House for measuring Raw water & Clear water flow from Filter bed out lets with accessories.		
	ii)Electrode Type: General type, Scraper type or replaceable type Electrode made with material of SS external Ultra Touch Sensors as per requirement.		
	iii)Customised Application Requirement : Sensors with Interface logic control board with serial interfaces, On - sensor Board Buffer, Timer, RS485 Communication, Analog to		

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
	Digital Sensing Sensor Circuit, 32 Sensors Sensing Tags, Interval Power Supply System , LCD 16c/2L, Filter Bed Working Status Indication LED, Filter Bed Wash Indication Button and memory of Data Storage for 30Days , status of Filter Bed Level indicator, Rating, Reading on LCD Display, Menu Driven Data for sending to Onsite Big Display, operated with Battery Power of any reputed make or any equivalent make.		
	iv)Customised Application Requirement: Power Sensors Interface logic control board with support 8 Power Sensing tags, Central System Interfacing Communication, On - board analog to Digit Convert Integrate Circuit of any reputed make or any equivalent make.		
	v)Customised Application Requirement: Centralized System with two serial interfaces, 3 Nos of Add-On ports, One external DC Power Socket, On - Board Buffer, On - Board Timer, On - Board RS485 Communication, On - Board RS 232 Communication, On - Board GPRS/GSM Module, On - Board Voice Chip, On - Board Power Sensing Module, LCD 16c/2L, Filter Bed Wash Precaution Indication with Stop Button, Memory of Data Storage for 30 Days, Total Bed Rating, Reading display on LCD Display, Menu Driven, Menu Navigate Keypad, sending data to the Web Server, Communication with GPRS , operated with Battery Power of any reputed make or any equivalent make.		
	Software:		
	The software shall be designed with Web Domain with Data Base Server and Web Name as per the directions of the Departmental Authorities		
	The application of Software for Web design & Desktop shall meet the following requirements:		
	Onsite Display: Letters with size of 1.5' Seven Segment LED Display with Interface for each Filter Bed, for Onsite Display, by displaying the Bed Levels, Ratings, Readings in 3 Columns , for each bed of the plant in successive rows and cumulative results at the bottom of the screen.		
	Off Site Display: Letters with size of 1.5' seven Segment LED Display with Interface GPRS/GSM Modules Offsite Display, with Display of Bed Total Rating, Total Cumulative Reading as specified on On-site Display Features.		
	The system shall have also the features of Onsite Bed Wash Voice Precautions for Bed Levels, Readings, Ratings, Bed Capacity Readings and Ratings and Bed Low Level Triggering, before & after Bed wash.		
	The software shall also have the features of sending messages to the mobiles of the Departmental designatories indicating Bed Low Levels, Power Supply timings, Bed Wash timings and its status, Power Supply timings and its status Grid View Table, Motor Working time and its status Grid View Table, all trigger events and schedule information and including all Snap View Reports, all Daily, Monthly, Yearly Reports, all Power Working Reports, all Power Events Information etc.,		

1. R.C.C. PLAIN ENDED PIPES

Sl. No.	Description				
1	Manufacture, Supply and Delivery of R.C.C. Spun / Vibrated Cast (Reinforced) Plain ended pipes conforming to B.I.S 458/2003, Ex-factory, Excluding transportation & taxes.				
	Size	Unit	Rate in Rs.		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia	Metre	187		
	100 mm dia	Metre	216		
	150 mm dia	Metre	256		
	200 mm dia	Metre	302		
	225 mm dia	Metre	326		
	250 mm dia	Metre	351		
	300 mm dia	Metre	499	1105	1151
	350 mm dia	Metre	626	1403	1429
	400 mm dia	Metre	722	1549	1585
	450 mm dia	Metre	880	1769	1789
	500 mm dia	Metre	973	1940	2227
	600 mm dia	Metre	1431	2898	3472
	700 mm dia	Metre	1840	3625	4671
	800 mm dia	Metre	2275	4789	6133
	900 mm dia	Metre	2866	6039	7630
	1000 mm dia	Metre	3470	7466	10405
	1100 mm dia	Metre	4134	8840	12087
	1200 mm dia	Metre	4920	10425	14148
	1400 mm dia	Metre	6682	13518	19671
	1600 mm dia	Metre	7799	17606	23975
	1800 mm dia	Metre	10176	23399	32242
	2000mm dia	Metre		28377	39283
	2200mm dia	Metre		33799	46941
	2400mm dia	Metre		39223	54599

Note : All the prices are ex-works. Taxes extra as applicable at the time of supply.

The above rates of RCC Plain ended pipes are based on the following raw materials cost.

Cement Rs.5200/- per MT (excluding all taxes).

Steel (M.S. Rods) - Rs.60000/- per MT. (excluding all taxes).

The revised cost of RCC pipes due to increase / decrease in the cost of raw materials shall be as per the following formula.

Revised Cost = Cost as per the above table + R1 + R2
 R1 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of M.S. Rods = $(S2 - S1) / 1000 \times Ws$.

R2 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of Cement = $(C2 - C1) / 1000 \times Wc$.

S1 = Rs.60000/- , S2 = Cost of M S Rods (Rs. Per MT excluding all taxes) at the time of preparation of estimate.

C1 = Rs.5200/- C2 = Cost of Cement (Rs. Per MT excluding all taxes) at the time of preparation of estimate.

Ws = Weight of MS Rods required (Kg.) per metre of pipe as per IS:458/2003. Wc = Weight of Cement required (Kg.) per metre of pipe.

2. R.C.C. COLLARS

Sl.No.	Description				
1	2				
1	Manufacture, Supply and Delivery of R.C.C. Collars conforming to B.I.S. 458/2003 (rate per each collar) suitable for R.C.C. Plain ended pipes including transportation but excluding taxes.				
	Size	Unit	Rate in Rs.		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia	Each	55		
	100 mm dia	Each	57		
	150 mm dia	Each	60		
	200 mm dia	Each	80		
	225 mm dia	Each	80		
	250 mm dia	Each	92		
	300 mm dia	Each	123	177	177
	350 mm dia	Each	148	215	215
	400 mm dia	Each	164	248	248
	450 mm dia	Each	257	324	324
	500 mm dia	Each	295	388	388
	600 mm dia	Each	399	509	509
	700 mm dia	Each	518	693	693
	800 mm dia	Each	737	872	872
	900 mm dia	Each	876	1013	1013
	1000 mm dia	Each	1022	1275	1275
	1100 mm dia	Each	1259	1614	1614
	1200 mm dia	Each	1533	2019	2019
	1400 mm dia	Each	1977	2561	2561
	1600 mm dia	Each	2522	3290	3290
	1800 mm dia	Each	2677	4252	4252

Note: Taxes extra as applicable at the time of supply.

The above rates of RCC Collars suitable to plain ended pipes are based on the following raw materials cost.

Cement. Rs.5200/- per MT (excluding all taxes).

Steel (M.S. Rods) - Rs.60000/- per MT. (excluding all taxes).

The revised cost of RCC collars due to increase / decrease in the cost of raw materials shall be as per the following formula.

Revised Cost = Cost as per the above table + R1 + R2 R1 = Variation (increase / decrease) in cost (Rs. per each) due to change in the cost of M.S. Rods = $(S2 - S1) / 1000 \times Ws$. R2 = Variation (increase / decrease) in cost (Rs. per each) due to change in the cost of Cement = $(C2 - C1) / 1000 \times Wc$. S1 = Rs.60000/- , S2 = Cost of M S Rods (Rs. Per MT excluding all taxes) at the time of preparation of estimate. C1 = Rs. 5200/- , C2 = Cost of Cement (Rs. Per MT excluding all taxes) at the time of preparation of estimate

Ws = Weight of MS Rods required (Kg.) per each collar. Wc = Weight of Cement required (Kg.) per each collar.

3. R.C.C. S/S PIPES (Non - Pressure)

Sl. No.	Description				
1	2				
1	Manufacture, Supply and Delivery of R.C.C. Spun / Vibrated Cast (Reinforced) Socket and Spigot pipes conforming to B.I.S. 458/2003 at ex-factory (rate per meter of effective length) Excluding transportation & taxes.				
	Size	Unit	Rate in Rs.		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia	Metre	230		
	100 mm dia	Metre	258		
	150 mm dia	Metre	302		
	200 mm dia	Metre	362		
	225 mm dia	Metre	398		
	250 mm dia	Metre	424		
	300 mm dia	Metre	594	1390	1492
	350 mm dia	Metre	762	1810	1843
	400 mm dia	Metre	845	2007	2043
	450 mm dia	Metre	1051	2215	2232
	500 mm dia	Metre	1210	2539	2765
	600 mm dia	Metre	1702	3564	3742
	700 mm dia	Metre	2216	4557	4895
	800 mm dia	Metre	2840	6036	6425
	900 mm dia	Metre	3590	7603	8057
	1000 mm dia	Metre	4343	8638	9736
	1100 mm dia	Metre	5120	10221	11275
	1200 mm dia	Metre	5827	12071	13209
	1400 mm dia	Metre	8232	15999	18765
	1600 mm dia	Metre	10179	20827	22909
	1800 mm dia	Metre	11572	27657	30808
	2000mm dia	Metre		33457	37157
	2200mm dia	Metre		39875	44378
	2400mm dia	Metre		46292	51601

Note: All the prices are ex-works, Taxes extra as applicable at the time of supply. The above rates of RCC S/S Non-Pressure pipes are based on the following raw materials cost Cement. Rs.5200/- per MT (excluding all taxes).

Steel (M.S. Rods) - Rs.60000/- per MT. (excluding all taxes).

The revised cost of RCC pipes due to increase / decrease in the cost of raw materials shall be as per the following formula. Revised Cost = Cost as per the above table + R1+R2 R1= Variation (increase / decrease) in cost (Rs. per metre)due to change in the cost of M.S. Rods =(S2-S1)/1000 X Ws. R2= Variation (increase / decrease) in cost (Rs. per metre)due to change in the cost of Cement =(C2-C1)/1000 X Wc. S1 = Rs.60000/- , S2 = Cost of M S Rods (Rs. Per MT excluding all taxes) at the time of preparation of estimate. C1 = Rs.5200/- , C2 = Cost of Cement (Rs. Per MT excluding all taxes) at the time of preparation of estimate Ws=Weight of MS Rods required (Kg.) per metre of pipe as per IS:458/2003.Wc= Weight of Cement required (Kg.) per metre of pipe.

4. R.C.C. S/S PIPES (Pressure)

Sl.No.	Description				
1	2				
1	Manufacture, Supply and Delivery of R.C.C. Socket and Spigot pipes conforming to B.I.S. 458/2003 Ex-factory (rate per meter of effective length) Excluding transportation, taxes & duties.				
	Size	Unit	Rate in Rs.		
			P1 - Class	P2 - Class	P3 - Class
	80 mm dia	Metre	291	333	377
	100 mm dia	Metre	331	395	459
	150 mm dia	Metre	454	594	737
	200 mm dia	Metre	530	761	1007
	225 mm dia	Metre	597	869	1129
	250 mm dia	Metre	653	936	1199
	300 mm dia	Metre	886	1352	1701
	350 mm dia	Metre	1102	1864	2440
	400 mm dia	Metre	1311	2458	3204
	450 mm dia	Metre	1422	2919	3976
	500 mm dia	Metre	1865	3208	4553
	600 mm dia	Metre	2556	4779	6380
	700 mm dia	Metre	3400	6365	8161
	800 mm dia	Metre	4262	7672	9943
	900 mm dia	Metre	5161	9097	
	1000 mm dia	Metre	6470	10519	
	1100 mm dia	Metre	7759		
	1200 mm dia	Metre	9130		

Note: All the prices are ex-works, Taxes extra as applicable at the time of supply.

The above rates of RCC S/S Pressure pipes are based on the following raw materials cost.

Cement. Rs.5200/- per MT (excluding all taxes).

Steel (M.S. Rods) - Rs.60000/- per MT. (excluding all taxes).

The revised cost of RCC pipes due to increase / decrease in the cost of raw materials shall be as per the following formula.

Revised Cost = Cost as per the above table + R1 + R2
 R1 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of M.S. Rods = $(S2 - S1) / 1000 \times Ws$.
 R2 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of Cement = $(C2 - C1) / 1000 \times Wc$.
 S1 = Rs.60000/- S2 = Cost of M S Rods (Rs. Per MT excluding all taxes) at the time of preparation of estimate. C1 = Rs. 5200/-, C2 = Cost of Cement (Rs. Per MT excluding all taxes) at the time of preparation of estimate

Ws = Weight of MS Rods required (Kg) per metre of pipe as per IS: 458 / 2003. Wc = Weight of Cement required (Kg) per metre of pipe.

5. RUBBER RINGS TO SUIT R.C.C. S/S PIPES

Sl. No.	Description				
1	2				
1	Manufacture, Supply and Delivery of Rubber rings to suit R.C.C. Spun / Vibrated Cast (Reinforced) Socket and Spigot pipes conforming to B.I.S 5382/ 1985 (rate per each rubber ring) including transportation but excluding taxes. the Rubber Rings shall be tested at the factory premises conforming to B.I.S. 5382/1985.				
	Size	Unit	Rate in Rs.		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia	Each	34		
	100 mm dia	Each	43		
	150 mm dia	Each	76		
	200 mm dia	Each	88		
	225 mm dia	Each	99		
	250 mm dia	Each	109		
	300 mm dia	Each	134	174	174
	350 mm dia	Each	155	205	205
	400 mm dia	Each	172	233	233
	450 mm dia	Each	194	265	265
	500 mm dia	Each	254	303	303
	600 mm dia	Each	333	442	442
	700 mm dia	Each	452	527	527
	800 mm dia	Each	574	639	639
	900 mm dia	Each	717	865	865
	1000 mm dia	Each	839	1043	1043
	1100 mm dia	Each	1009	1335	1335
	1200 mm dia	Each	1616	1679	1679
	1400 mm dia	Each	1777	1847	1847
	1600 mm dia	Each	2214	2255	2255
	1800 mm dia	Each	2756	2880	2880
	2000mm dia	Each		3287	3287
	2200mm dia	Each		3695	3695
	2400mm dia	Each		4102	4102
2	Manufacture, Supply and Delivery of Rubber rings to suit R.C.C. Socket and Spigot pipes conforming to B.I.S 5382/ 1985 (rate per each rubber ring) including transportation but excluding taxes. The Rubber Rings shall be tested at the factory premises conforming to B.I.S. 5382/1985.				
	Size		P1 - Class	P2 - Class	P3 - Class
	80 mm dia	Each	34	34	34
	100 mm dia	Each	43	45	45
	150 mm dia	Each	76	76	76
	200 mm dia	Each	88	88	88
	225 mm dia	Each	99	100	102
	250 mm dia	Each	109	112	116
	300 mm dia	Each	134	142	147
	350 mm dia	Each	155	178	194

	400 mm dia	Each	172	233	238
	450 mm dia	Each	194	267	274
	500 mm dia	Each	254	303	317
	600 mm dia	Each	333	375	381
	700 mm dia	Each	452	496	527
	800 mm dia	Each	574	635	635
	900 mm dia	Each	717	800	
	1000 mm dia	Each	839	965	
	1100 mm dia	Each	1009		
	1200 mm dia	Each	1258		

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

6. CONVEYANCE OF R.C.C. PLAIN ENDED PIPES

Sl.No.	Description	Rate upto 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.	Rate upto 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.
1	2	3	4	5	6
1	Conveyance of R.C.C Spun / Vibrated Cast (Reinforced) Plain ended pipes on all weathered roads including loading, unloading and stacking (per metre)				
		NP - 2 Class		NP - 3 Class & NP - 4 Class	
	80 mm dia	4.38	0.18		
	100 mm dia	5.75	0.18		
	150 mm dia	8.63	0.38		
	200 mm dia	11.51	0.38		
	225 mm dia	13.01	0.56		
	250 mm dia	14.50	0.56		
	300 mm dia	20.26	0.77	56.24	1.55
	350 mm dia	28.87	1.74	60.62	1.74
	400 mm dia	31.74	1.92	72.25	2.33
	450 mm dia	41.88	2.33	77.98	2.68
	500 mm dia	44.74	2.68	85.12	2.68
	600 mm dia	64.99	4.22	128.48	5.96
	700 mm dia	82.23	5.96	142.86	6.94
	800 mm dia	96.74	5.96	171.74	6.94
	900 mm dia	111.11	5.96	225.23	13.08
	1000 mm dia	164.60	12.29	271.33	13.08
	1100 mm dia	180.49	12.29	294.45	14.23
	1200 mm dia	204.98	13.08	329.08	14.23
	1400 mm dia	246.85	13.08	447.57	14.80
	1600 mm dia	285.84	13.08	537.06	14.80
	1800 mm dia	329.08	13.08	716.04	20.77
	2000 mm dia				
	2200 mm dia				
	2400 mm dia				

7. CONVEYANCE OF R.C.C. S/S PIPES

Sl. No.	Description	Rate upto 5 Kms Lead including Loading, unloading & stacking	Rate for every additional 1 KM lead or part thereof.	Rate upto 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.
1	Conveyance of R.C.C. Spun / Vibrated Cast (Reinforced) Socket and Spigot pipes on all weather roads including loading, unloading and stacking (per metre of effective length).				
	Size	NP - 2 & P1 Class		NP - 3 & NP - 4 Class	
	80 mm dia	5.75	0.17		
	100 mm dia	5.75	0.34		
	150 mm dia	10.12	0.34		
	200 mm dia	13.01	0.70		
	225 mm dia	14.50	0.70		
	250 mm dia	15.86	1.58		
	300 mm dia	25.99	1.75	66.35	2.10
	350 mm dia	30.38	1.92	72.25	2.44
	400 mm dia	30.38	2.26	89.49	4.56
	450 mm dia	43.38	2.44	98.12	4.56
	500 mm dia	47.61	2.62	108.24	4.91
	600 mm dia	62.12	4.56	145.86	6.99
	700 mm dia	76.50	4.91	196.35	13.81
	800 mm dia	105.37	7.52	232.47	13.81
	900 mm dia	157.35	13.44	268.46	13.81
	1000 mm dia	178.99	13.44	282.97	13.81
	1100 mm dia	202.10	13.81	303.21	13.81
	1200 mm dia	225.23	13.81	339.21	14.15
	1400 mm dia	280.08	13.81	454.70	14.15
	1600 mm dia	332.08	14.15	537.06	15.19
	1800 mm dia	411.45	14.15	716.04	20.79
	2000 mm dia				
		P2 - Class		P3 - Class	
	80 mm dia	5.75	0.17	5.75	0.17
	100 mm dia	5.75	0.34	5.75	0.34
	150 mm dia	10.12	0.34	10.12	0.34
	200 mm dia	13.01	0.70	17.38	1.58
	225 mm dia	17.38	1.58	20.26	1.75
	250 mm dia	18.75	1.75	24.50	1.92
	300 mm dia	36.13	2.10	41.88	2.26
	350 mm dia	44.74	2.44	57.75	2.62
	400 mm dia	53.38	2.62	76.50	4.56
	450 mm dia	67.87	4.38	95.24	4.56
	500 mm dia	76.50	4.56	115.48	6.81
	600 mm dia	101.12	4.56	167.48	8.74
	700 mm dia	151.61	9.24	243.96	13.81
	800 mm dia	200.61	13.11	311.84	13.81
	900 mm dia	243.96	13.81		
	1000 mm dia	300.22	14.15		

8. A.C. PIPES

The PH & ME department banned the usage of RCC & AC pipes for water supply works vide Memo no 146/T2/SoR/2014-15/2014 dated 30.06.2014. However ENC (RWS) requested in the SoR meeting on 06.05.2015 to incorporate A.C pipes rates in SoR for carrying out O&M works, accordingly the following rates are adopted.

Sl.No	Description					
1	Manufacture, Supply of A.C*. Pressure pipes (mazza process) as per BIS No: 1592/2003 as amended from time to time duly marked with BIS mark, including cost of material, incidental handling, loading and packing charges but are exclusive of transportation, unloading, stacking at departmental stores, and excluding taxes. The pipes shall be tested at factory premises conforming to IS code 1592/2003.					
	Size	Unit	Rate in Rs.			
				Class - 15	Class - 20	Class - 25
	80 mm dia	Rate/Metre		216	237	296
	100 mm dia	Rate/Metre		285	361	442
	125 mm dia	Rate/Metre		370	459	579
	150 mm dia	Rate/Metre		519	649	813
	200 mm dia	Rate/Metre		859	1102	1399
	250 mm dia	Rate/Metre		1090	1415	1771
	300 mm dia	Rate/Metre		1524	1987	2538
	350 mm dia	Rate/Metre		1855	2413	3044
	400 mm dia	Rate/Metre		2410	3157	3918
	450 mm dia	Rate/Metre		2868	3808	4769
	500 mm dia	Rate/Metre		3536	4654	5845
	600 mm dia	Rate/Metre		5029	6572	8374
	700 mm dia	Rate/Metre		6617	8975	11606
	750 mm dia	Rate/Metre		7540	10362	13279
	800 mm dia	Rate/Metre		8627	11739	15066
	850 mm dia	Rate/Metre		9679	13204	16965
	900 mm dia	Rate/Metre		10790	14754	18977
	1000 mm dia	Rate/Metre		13320	18112	23335
2	Lowering, laying and jointing of AC pressure pipes with ac couplings or CID joints complete with Rubber rings in readymade trenches true to alignment and gradient including filling with water lead upto 500 mts and testing to required pressure including all sundries but excluding cost of jointing materials and conveyance from source of supply as per BIS No. 6530/1972					
	80 mm dia	Rate/Metre		42	42	42
	100 mm dia	Rate/Metre		62	62	62
	125 mm dia	Rate/Metre		67	67	67
	150 mm dia	Rate/Metre		80	80	80
	200 mm dia	Rate/Metre		105	105	105
	250 mm dia	Rate/Metre		126	126	126
	300 mm dia	Rate/Metre		156	156	156
	350 mm dia	Rate/Metre		264	264	264
	400 mm dia	Rate/Metre		397	397	397
	450 mm dia	Rate/Metre		482	482	482

	500 mm dia	Rate/Metre		613	613	613
	600 mm dia	Rate/Metre		659	659	659
	700 mm dia	Rate/Metre		736	736	736
	750 mm dia	Rate/Metre		819	819	819
	800 mm dia	Rate/Metre		862	862	862
	850 mm dia	Rate/Metre		919	919	919
	900 mm dia	Rate/Metre		1004	1004	1004
	1000 mm dia	Rate/Metre		1032	1032	1032
	1. The above rates of AC Pipes are based on the Cement cost of Rs.5200/- per MT (excluding all taxes). 2. The above rates of AC pipes are based on the Fiber cost of Rs.78,500/- per M.T (excluding all taxes) For any Increase/ Decrease in the rate of cement, the price of AC pipe per Rmt shall be increased/decreased as under. $W \times 0.85 \times IC$ Where W = Weight of pipe in Kg's/Rmt IC = Increase/Decrease in cost of cement/Kg For any increase/decrease in the rate of fiber, the price of AC pipe per Rmt shall be increased/Decreased as under : $W \times 0.15 \times IF$ Where : W=: Weight of pipe in Kg's/Rmt IF = Increase /Decrease in cost of fiber/Kg					
Note:	1) The Fiber rates are to be obtained from A.C. Pipe manufacturer of "Mazza" process. 2) The cement rate shall be communicated by the sub-committee of Board of Chief engineers. 3)The taxes as applicable shall be added as per rules at the time of preparation of estimate					
2	Transportation of AC pressure pipes at site of work anywhere in Telangana State on motor able roads for full truck loads including transit insurance, unloading, and stacking at site of work etc. Complete (AC Couplings and Rubber rings are to be supplied free of transportation charges).				5% on the basic cost of corresponding AC Pressure pipes.	

*Under any Circumstances the A.C. pipes shall not be procured for laying new water lines, except O&M works.

9. A.C. COUPLINGS

The PH & ME department banned the usage of RCC & AC pipes for water supply works vide Memo no 146/T2/SoR/2014-15/2014 dated 30.06.2014. However ENC (RWS) requested in the SoR meeting on 06.05.2015 to incorporate A.C pipes rates in SoR for carrying out O&M works, accordingly the following rates are adopted.

Sl.No	Description					
1	2					
1	Manufacture, Supply of A.C* Couplings suitable to A.C*.Pressure pipes (mazza process) as per BIS: 1592/2003 excluding cost of rubber rings to suit AC* pressure pipes including cost of material, incidental handling, packing, transportation and unloading at site transit risk, but excluding taxes and testing of joints as per IS Code.					
	Size	Unit	Rate in Rs.			
				Class - 15	Class - 20	Class - 25
	80 mm dia	Rate/Each		101	107	124
	100 mm dia	Rate/Each		129	143	169
	125 mm dia	Rate/Each		165	180	216
	150 mm dia	Rate/Each		191	238	294
	200 mm dia	Rate/Each		350	386	490
	250 mm dia	Rate/Each		410	517	656
	300 mm dia	Rate/Each		535	693	891
	350 mm dia	Rate/Each		691	893	1139
	400 mm dia	Rate/Each		1066	1390	1776
	450 mm dia	Rate/Each		1277	1681	2158
	500 mm dia	Rate/Each		1521	2031	2593
	600 mm dia	Rate/Each		1878	2359	3017
	700 mm dia	Rate/Each		2466	3322	4319
	750 mm dia	Rate/Each		2783	3804	4909
	800 mm dia	Rate/Each		3157	4281	5541
	850 mm dia	Rate/Each		3517	4788	6211
	900 mm dia	Rate/Each		3892	5323	6912
	1000 mm dia	Rate/Each		4751	6471	8434

1. The above rates of AC Coupling are based on the Cement cost of Rs.5200/- per MT (Excluding all taxes).

2. The above rates of AC Coupling are based on the Fiber cost of Rs.78,500/- per M.T (Excluding all taxes)

For any Increase/ Decrease in the rate of cement, the price of AC Coupling per Each shall be increased/decreased as under.

$W \times 0.85 \times IC$ Where W = Weight of Coupling in Kgs/Each, IC = Increase/Decrease in cost of cement/kg. For any increase/decrease in the rate of fiber, the price of AC Coupling per Each shall be increased/Decreased as under :

$W \times 0.15 \times IF$ Where : W=: Weight of Coupling in Kgs/Each, IF = Increase /Decrease in cost of fiber/kg. The Fiber rates are to be obtained from A.C. Pipe manufacturer of "Mazza" process. The cement rate shall be communicated by the sub-committee of Board of Chief engineers. Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

10. RUBBER RINGS TO SUIT A.C. COUPLINGS

The PH & ME department banned the usage of RCC & AC pipes for water supply works vide Memo no 146/T2/SoR/2014-15/2014 dated 30.06.2014. However ENC (RWS) requested in the SoR meeting on 06.05.2015 to incorporate A.C pipes rates in SoR for carrying out O&M works, accordingly the following rates are adopted.

Sl. No.	Description		
1	2		
1	Schedule of rate for supply of Rubber rings manufactured as per BIS: 5382/1988 with BIS Mark embossed per each set suitable for A.C* Couplings including cost of material, incidental, handling, packing, transportation and unloading at site transit risk etc., but excluding taxes. The Rubber Rings shall be tested at the factory premises conforming to B.I.S 5382/1988		
	Size	Unit	Rate in Rs.
			Class - 15, 20 & 25
	80 mm dia	Each Set	89
	100 mm dia	Each Set	110
	125 mm dia	Each Set	142
	150 mm dia	Each Set	180
	200 mm dia	Each Set	187
	250 mm dia	Each Set	217
	300 mm dia	Each Set	217
	350 mm dia	Each Set	246
	400 mm dia	Each Set	301
	450 mm dia	Each Set	353
	500 mm dia	Each Set	408
	600 mm dia	Each Set	464
	700 mm dia	Each Set	960
	750 mm dia	Each Set	999
	800 mm dia	Each Set	1074
	850 mm dia	Each Set	1195
	900 mm dia	Each Set	1257
	1000 mm dia	Each Set	1393

Note: The taxes as applicable shall be added as per rules at the time of preparation of estimate.

11. PRE-STRESSED (NON-CYLINDER) CONCRETE PIPES

Sl.No.	Description							
1	Manufacture, Supply, Delivery of Pre-stressed (Non-cylinder) concrete pipes conforming to IS 784/2001 ex-factory excluding transportation & taxes, for the following field test pressures.(the manufacture shall design the pipes as per the IS Code 784-2001)							
	Size	Unit	Rate					
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
			6 Kg/cm2	8 Kg/cm2	10 Kg/cm2	12 Kg/cm2	14 Kg/cm2	16 Kg/cm2
	350 mm dia	Metre	3184	3195	3212	3239	3309	3429
	400 mm dia	Metre	3417	3444	3487	3546	3618	3680
	450 mm dia	Metre	3630	3654	3705	3792	3897	3990
	500 mm dia	Metre	3931	3957	4001	4102	4200	4333
	600 mm dia	Metre	4525	4571	4635	4801	4970	5136
	700 mm dia	Metre	5313	5408	5555	5742	5929	6206
	800 mm dia	Metre	6465	6635	6816	7058	7297	7691
	900 mm dia	Metre	7429	7653	7886	8267	8564	9242
	1000 mm dia	Metre	8769	9059	9361	9678	10043	10827
	1100 mm dia	Metre	9853	10187	10559	10934	11378	12286
	1200 mm dia	Metre	11090	11527	11944	12264	12266	14162
	1300 mm dia	Metre	12593	13090	13587	14089	15445	16136
	1400 mm dia	Metre	14588	15169	15763	16749	17907	18763
	1500 mm dia	Metre	16493	17177	17832	19476	20300	22675
	1600 mm dia	Metre	18583	19330	20083	22148	22981	25301
	1700 mm dia	Metre	19947	20805	21656	23820	26334	27601
	1800 mm dia	Metre	22081	23587	25075	27353	28399	31448
	1900 mm dia	Metre	23591	24990	27453	29118	31790	34364
	2000 mm dia	Metre	25975	27701	29379	32234	35852	37327
2	Cost of laying jointing, testing to hydrostatic field test pressure including cost of rubber rings, cost of transportation of water and emptying pipe line after completion of field testing etc.							
	350 mm dia	Metre	277	277	277	277	277	277
	400 mm dia	Metre	299	299	299	299	299	299
	450 mm dia	Metre	345	345	345	345	345	345

	500 mm dia	Metre	367	367	367	367	367	367
	600 mm dia	Metre	452	452	452	452	452	452
	700 mm dia	Metre	529	529	529	529	529	529
	800 mm dia	Metre	600	600	600	600	600	600
	900 mm dia	Metre	656	656	656	656	656	656
	1000 mm dia	Metre	758	758	758	758	758	758
	1100 mm dia	Metre	851	851	851	851	851	851
	1200 mm dia	Metre	943	943	943	943	943	943
	1300 mm dia	Metre	1069	1069	1069	1069	1069	1069
	1400 mm dia	Metre	1210	1210	1210	1210	1210	1210
	1500 mm dia	Metre	1312	1312	1312	1312	1312	1312
	1600 mm dia	Metre	1471	1471	1471	1471	1471	1471
	1700 mm dia	Metre	1601	1601	1601	1601	1601	1601
	1800 mm dia	Metre	1693	1693	1693	1693	1693	1693
	1900 mm dia	Metre	1788	1788	1788	1788	1788	1788
	2000 mm dia	Metre	1883	1883	1883	1883	1883	1883
3	Conveyance of pre-stressed (Non-cylinder) concrete pipes and accessories including loading at factory, un-loading at site and stacking for the following sizes.(minimum distance of 100 km to be considered if the distance is less by 100 km from factory to site)							
	350 mm dia	PerKM/M	1.88	1.88	1.88	1.88	1.88	1.88
	400 mm dia	PerKM/M	1.88	1.88	1.88	1.88	1.88	1.88
	450 mm dia	PerKM/M	2.28	2.28	2.28	2.28	2.28	2.28
	500 mm dia	PerKM/M	2.40	2.40	2.40	2.40	2.40	2.40
	600 mm dia	PerKM/M	2.68	2.68	2.68	2.68	2.68	2.68
	700 mm dia	PerKM/M	4.42	4.42	4.42	4.42	4.42	4.42
	800 mm dia	PerKM/M	4.42	4.42	4.42	4.42	4.42	4.42
	900 mm dia	PerKM/M	4.42	4.42	4.42	4.42	4.42	4.42
	1000 mm dia	PerKM/M	7.10	7.10	7.10	7.10	7.10	7.10
	1100 mm dia	PerKM/M	7.10	7.10	7.10	7.10	7.10	7.10
	1200 mm dia	PerKM/M	13.50	13.50	13.50	13.50	13.50	13.50
	1300 mm dia	PerKM/M	13.66	13.66	13.66	13.66	13.66	13.66

	1400 mm dia	PerKM/M	13.66	13.66	13.66	13.66	13.66	13.66
	1500 mm dia	PerKM/M	13.66	13.66	13.66	13.66	13.66	13.66
	1600 mm dia	PerKM/M	15.26	15.26	15.26	15.26	15.26	15.26
	1700 mm dia	PerKM/M	15.26	15.26	15.26	15.26	15.26	15.26
	1800 mm dia	PerKM/M	15.66	15.66	15.66	15.66	15.66	15.66
	1900 mm dia	PerKM/M	16.31	16.31	16.31	16.31	16.31	16.31
	2000 mm dia	PerKM/M	16.31	16.31	16.31	16.31	16.31	16.31
4	Cost of Machine End pair (Socket +Spigot) with 100mm length MS Barrel on each side of Socket and Spigot for providing M.S Specials on PSC pipelines excluding cost of M.S Specials & Taxes but including cost of conveyance to site etc., complete.							
	350 mm dia	Per Pair	12346.00	12346.00	12346.00	12346.00	12346.00	12346.00
	400 mm dia	Per Pair	14163.00	14163.00	14163.00	14163.00	14163.00	14163.00
	450 mm dia	Per Pair	15986.00	15986.00	15986.00	15986.00	15986.00	15986.00
	500 mm dia	Per Pair	17823.00	17823.00	17823.00	17823.00	17823.00	17823.00
	600 mm dia	Per Pair	21209.00	21209.00	21209.00	21209.00	21209.00	21209.00
	700 mm dia	Per Pair	24863.00	24863.00	24863.00	24863.00	24863.00	24863.00
	800 mm dia	Per Pair	28423.00	28423.00	28423.00	28423.00	28423.00	28423.00
	900 mm dia	Per Pair	32264.00	32264.00	32264.00	32264.00	32264.00	32264.00
	1000 mm dia	Per Pair	34977.00	34977.00	34977.00	34977.00	34977.00	34977.00
	1100 mm dia	Per Pair	38635.00	38635.00	38635.00	38635.00	38635.00	38635.00
	1200 mm dia	Per Pair	42129.00	42129.00	42129.00	42129.00	42129.00	42129.00
	1300 mm dia	Per Pair	45586.00	45586.00	45586.00	45586.00	45586.00	45586.00
	1400 mm dia	Per Pair	54165.00	54165.00	54165.00	54165.00	54165.00	54165.00
	1500 mm dia	Per Pair	63950.00	63950.00	63950.00	63950.00	63950.00	63950.00
	1600 mm dia	Per Pair	71475.00	71475.00	71475.00	71475.00	71475.00	71475.00
	1700 mm dia	Per Pair	80478.00	80478.00	80478.00	80478.00	80478.00	80478.00
	1800 mm dia	Per Pair	92305.00	92305.00	92305.00	92305.00	92305.00	92305.00
	1900 mm dia	Per Pair	107087.00	107087.00	107087.00	107087.00	107087.00	107087.00
	2000 mm dia	Per Pair	125416.00	125416.00	125416.00	125416.00	125416.00	125416.00

5	Cost of M.S Flanges including cost of bolts, nuts, rubber packing etc., complete and flange thickness conforming to IS:7322-1985 and flange dimensions conforming to IS:1538-1993 excluding cost of MS specials including cost and conveyance to site etc., complete.					
	Diameter and thickness	Unit	Rate	Diameter and thickness	Unit	Rate
	80 mm diax 15 mm thick	Each Flange	884.00	500mm diax 20 mm thick	Each Flange	9059.00
	100 mm diax 15 mm thick	Each Flange	1219.00	600 mm diax 20 mm thick	Each Flange	11403.00
	125 mm diax 15 mm thick	Each Flange	1465.00	700 mm diax 25 mm thick	Each Flange	16095.00
	150 mm diax 15 mm thick	Each Flange	1954.00	750 mm diax 25 mm thick	Each Flange	17702.00
	200 mm diax 15 mm thick	Each Flange	2439.00	800 mm diax 25 mm thick	Each Flange	19825.00
	250 mm diax 15 mm thick	Each Flange	3177.00	900 mm diax 25 mm thick	Each Flange	22767.00
	300 mm diax 15 mm thick	Each Flange	3616.00	1000 mm diax 25 mm thick	Each Flange	26828.00
	350 mm diax 18 mm thick	Each Flange	5242.00	1050 mm diax 25 mm thick	Each Flange	28497.00
	400 mm diax 18 mm thick	Each Flange	6549.00	1100 mm diax 25 mm thick	Each Flange	30733.00
	450 mm diax 18 mm thick	Each Flange	7615.00	1200 mm diax 32 mm thick	Each Flange	40712.00

Note: a) The above rate of PSC pipes are based on the HT wire cost of Rs.68,375/-MT (excluding all taxes and freight). and cement price of Rs.5200/- per MT (excluding all taxes)

The rates may be revised depending upon the increase/decrease in the cost of HT wire and cement. as per the following method. The cost of HT wire may be obtained from reputed firms like SAIL/TATA/ SS Ltd. etc., Revised Cost =Cost as per the above table +R1+R2.

R1= Variation (increase / decrease) in cost (Rs. per metre)due to change in the cost of HT Wire $= (H2-H1)/1000 \times Wh$. R2= Variation (increase / decrease) in cost (Rs. per metre)due to change in the cost of Cement $= (C2-C1)/1000 \times Wc$. H1 = Rs.68,375/- H2 = Cost of HT Wire (Rs. Per MT excluding all taxes and freight) at the time of preparation of estimate. C1 = Rs. 5200/- C2 = Cost of Cement (Rs. Per MT excluding all taxes) at the time of preparation of estimate

Wh=Weight of HT Wire required (Kg.) per metre of pipe. Wc= Weight of Cement required (Kg.) per metre of pipe.

The rates for MS flanges are considering MS Plates of Rs.68000/- per MT. Price variation to be released on actual weight of flange.

Note: The duties and taxes as applicable shall be added as per rules at the time of preparation of estimate.

12. PRE-STRESSED (CYLINDER) CONCRETE PIPES

Sl No.	Description										
1	2										
1	Pre-stressed (Cylinder type) concrete pipes conforming to IS 784/2001 @ ex-factory cost of pipes, excluding transportation, laying, jointing, testing, bends, tees, specials & taxes. For the following field test pressures.(the manufacture shall design the pipes as per the IS Code 784-2001).										
	Size	Unit	Rate in Rs.								
			4 Kg/cm2	6 Kg/cm2	8 Kg/cm2	10 Kg/cm2	12 Kg/cm2	14 Kg/cm2	16 Kg/cm2	18 Kg/cm2	20 Kg/cm2
	400 mm dia	Meter	6191	6191	6191	6191	6222	6290	6399	6505	6588
	450 mm dia	Meter	6742	6742	6742	6771	6852	6950	7069	7130	7198
	500 mm dia	Meter	7214	7214	7279	7351	7415	7505	7605	7687	7766
	600 mm dia	Meter	8296	8380	8471	8574	8667	8758	8913	9032	9139
	700 mm dia	Meter	9457	9572	9702	9822	9951	10069	10283	10421	10589
	800 mm dia	Meter	10825	10966	11120	11285	11439	11592	11818	12032	12219
	900 mm dia	Meter	12294	12493	12688	12892	13097	13298	13813	14081	14394
	1000 mm dia	Meter	14749	14990	15234	15489	15734	15985	16661	17015	17369
	1100 mm dia	Meter	16382	16674	16980	17275	17581	17873	18699	19091	19582
	1200 mm dia	Meter	18225	18580	18925	19283	19653	20007	20987	21513	22018
	1300 mm dia	Meter	20355	20774	21194	21615	22038	22799	23667	24273	24947
	1400 mm dia	Meter	22787	23303	23831	24405	25392	26090	27036	27337	28500
	1500 mm dia	Meter	26720	27353	27901	28459	29557	30182	31025	32295	32992
	1600 mm dia	Meter	30089	30928	31647	32818	33530	34310	35766	36555	37341
	1700 mm dia	Meter	32355	33276	33994	35328	36130	37796	38747	39644	40544
	1800 mm dia	Meter	35402	36422	38422	39662	40874	43148	45077	46088	47118
	1900 mm dia	Meter	41163	42060	43646	44602	46571	47680	48863	49993	51115
	2000 mm dia	Meter	43333	44973	46064	47168	49364	50587	51902	53151	54403

2	Cost of laying jointing, testing to hydrostatic field test pressure including cost of site welding and fixing of polypropylene diapher cloth, cost of transportation of water and emptying pipe line after completion of field testing etc.										
	400 mm dia	Meter	563	563	563	563	563	563	563	563	563
	450 mm dia	Meter	660	660	660	660	660	660	660	660	660
	500 mm dia	Meter	720	720	720	720	720	720	720	720	720
	600 mm dia	Meter	842	842	842	842	842	842	842	842	842
	700 mm dia	Meter	960	960	960	960	960	960	960	960	960
	800 mm dia	Meter	1103	1103	1103	1103	1103	1103	1103	1103	1103
	900 mm dia	Meter	1242	1242	1242	1242	1242	1242	1242	1242	1242
	1000 mm dia	Meter	1361	1361	1361	1361	1361	1361	1361	1361	1361
	1100 mm dia	Meter	1544	1544	1544	1544	1544	1544	1544	1544	1544
	1200 mm dia	Meter	1683	1683	1683	1683	1683	1683	1683	1683	1683
	1300 mm dia	Meter	1802	1802	1802	1802	1802	1802	1802	1802	1802
	1400 mm dia	Meter	1982	1982	1982	1982	1982	1982	1982	1982	1982
	1500 mm dia	Meter	2201	2201	2201	2201	2201	2201	2201	2201	2201
	1600 mm dia	Meter	2382	2382	2382	2382	2382	2382	2382	2382	2382
	1700 mm dia	Meter	2683	2683	2683	2683	2683	2683	2683	2683	2683
	1800 mm dia	Meter	2844	2844	2844	2844	2844	2844	2844	2844	2844
	1900 mm dia	Meter	3103	3103	3103	3103	3103	3103	3103	3103	3103
	2000 mm dia	Meter	3303	3303	3303	3303	3303	3303	3303	3303	3303
3	Conveyance of Pre-stressed (Cylinder type) concrete pipes and accessories including loading at factory, un-loading at site and stacking for the following sizes. (minimum distance of 100 km to be considered if the distance is less by 100 km from factory to site)										
	400 mm dia	Per KM/M	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	450 mm dia	Per KM/M	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	500 mm dia	Per KM/M	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28
	600 mm dia	Per KM/M	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55
	700 mm dia	Per KM/M	4.02	4.02	4.02	4.02	4.02	4.02	4.02	4.02	4.02
	800 mm dia	Per KM/M	4.02	4.02	4.02	4.02	4.02	4.02	4.02	4.02	4.02
	900 mm dia	Per KM/M	4.02	4.02	4.02	4.02	4.02	4.02	4.02	4.02	4.02
	1000 mm dia	Per KM/M	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42
	1100 mm dia	Per KM/M	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42

	1200 mm dia	Per KM/M	12.71	12.71	12.71	12.71	12.71	12.71	12.71	12.71	12.71
	1300 mm dia	Per KM/M	12.71	12.71	12.71	12.71	12.71	12.71	12.71	12.71	12.71
	1400 mm dia	Per KM/M	12.71	12.71	12.71	12.71	12.71	12.71	12.71	12.71	12.71
	1500 mm dia	Per KM/M	12.71	12.71	12.71	12.71	12.71	12.71	12.71	12.71	12.71
	1600 mm dia	Per KM/M	12.71	12.71	12.71	12.71	12.71	12.71	12.71	12.71	12.71
	1700 mm dia	Per KM/M	15.26	15.26	15.26	15.26	15.26	15.26	15.26	15.26	15.26
	1800 mm dia	Per KM/M	15.26	15.26	15.26	15.26	15.26	15.26	15.26	15.26	15.26
	1900 mm dia	Per KM/M	15.26	15.26	15.26	15.26	15.26	15.26	15.26	15.26	15.26
	2000 mm dia	Per KM/M	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2

Note: The rates of PCCP pipes which were incorporated in the SoR are based on the following raw materials cost.

HT Wire: - Rs.68375/- (excluding all taxes and freight)

HR Coil (Hot Rolled): - Rs.66250/- (excluding all taxes and freight)

Cement Cost Rs. 5200/- per MT (excluding all taxes)

The rates may be revised depending upon the increase/ decrease in the cost of raw materials (landed price) as per the following method.

Revised Cost = Cost as per the above table + R1 + R2 + R3.

R1 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of HT Wire = $(H2 - H1) / 1000 \times Wh$. R2 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of HR Coil = $(R2 - R1) / 1000 \times Wr$. R3 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of Cement = $(C2 - C1) / 1000 \times Wc$. H1 = Rs.68375/- H2 = Cost of HT Wire (Rs. Per MT excluding all taxes and freight) at the time of preparation of estimate.

R1 = Rs.66250/- R2 = Cost of HR Coil (Rs. Per MT excluding all taxes and freight) at the time of preparation of estimate.

C1 = Rs. 5200/- C2 = Cost of Cement (Rs. Per MT excluding all taxes) at the time of preparation of estimate

Wh = Weight of HT Wire required (Kg.) per metre of pipe. Wc = Weight of Cement required (Kg.) per meter of pipe.

Wr = Weight of HR Coil required (kg) per metre of pipe.

Note: The duties and taxes as applicable shall be added as per rules at the time of preparation of estimate

13. BAR WRAPPED STEEL CYLINDER (BWSC) PIPES

Sl. No	Description											
1	Bar Wrapped Steel Cylinder (BWSC) pipes conforming to IS 15155 - 2002, ex-factory excluding transportation, taxes and duties etc., for bar wrapped steel cylinder pipes for the following field test pressures.											
	Size	Unit	Rate in Rs.									
			4 -12 Kg/cm ²	14 Kg/cm ²	16 Kg/cm ²	18 Kg/cm ²	20 Kg/cm ²	22 Kg/cm ²	24 Kg/cm ²	26 Kg/cm ²	28 Kg/cm ²	30 Kg/cm ²
	250 mm dia	Meter	2927	2927	2927	2927	2927	2927	3214	3326	3379	3530
	300 mm dia	Meter	3290	3290	3290	3290	3290	3447	3879	4033	4132	4321
	350 mm dia	Meter	3963	3963	3963	4032	4239	4460	4668	4875	5096	5276
	400 mm dia	Meter	4377	4377	4474	4755	5014	5290	5548	5825	6037	6335
	450 mm dia	Meter	4914	4956	5313	5645	6001	6281	6655	6909	7211	7706
	500 mm dia	Meter	5337	5724	6139	6578	6945	7449	7844	8195	8764	9232
	600 mm dia	Meter	6702	7186	7794	8372	8991	9599	10369	11053	11725	12215
	700 mm dia	Meter	8112	9021	9810	10619	11612	12441	13233	14574	15301	15891
	800 mm dia	Meter	9697	10999	12034	13184	14551	15580	16983	18231	19158	20118
	900 mm dia	Meter	11886	13337	14620	16015	17482	19180	20432	22120	23637	25027
	1000 mm dia	Meter	14022	15847	17760	19587	21145	22535	24564	26393	28992	30352
	1100 mm dia	Meter	18935	19346	21248	23355	25396	27264	30229	31801	34548	36428
	1200 mm dia	Meter	20694	22143	24447	26841	29267	31518	34762	38017	41001	42921
2	Cost of laying jointing, testing to hydrostatic field test pressure including cost of site welding and fixing of polypropylene diaher cloth, cost of transportation of water and emptying pipe line after completion of field testing.											
	250 mm dia	Meter	383	383	383	383	383	383	383	383	383	383
	300 mm dia	Meter	452	452	452	452	452	452	452	452	452	452
	350 mm dia	Meter	532	532	532	532	532	532	532	532	532	532

	400 mm dia	Meter	596	596	596	596	596	596	596	596	596	596
	450 mm dia	Meter	596	596	596	596	596	596	596	596	596	596
	500 mm dia	Meter	747	747	747	747	747	747	747	747	747	747
	600 mm dia	Meter	918	918	918	918	918	918	918	918	918	918
	700 mm dia	Meter	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070
	800 mm dia	Meter	1217	1217	1217	1217	1217	1217	1217	1217	1217	1217
	900 mm dia	Meter	1430	1430	1430	1430	1430	1430	1430	1430	1430	1430
	1000 mm dia	Meter	1580	1580	1580	1580	1580	1580	1580	1580	1580	1580
	1100 mm dia	Meter	1857	1857	1857	1857	1857	1857	1857	1857	1857	1857
	1200 mm dia	Meter	2079	2079	2079	2079	2079	2079	2079	2079	2079	2079
3	Conveyance of Bar Wrapped Steel Cylinder (BWSC) pipes and accessories including loading at factory, un-loading at site and stacking for the following sizes. (minimum distance of 100 km to be considered if the distance is less by 100 km from factory to site)											
	250 mm dia	Per KM/M	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
	300 mm dia	Per KM/M	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
	350 mm dia	Per KM/M	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
	400 mm dia	Per KM/M	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41
	450 mm dia	Per KM/M	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84
	500 mm dia	Per KM/M	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
	600 mm dia	Per KM/M	2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39
	700 mm dia	Per KM/M	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68
	800 mm dia	Per KM/M	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
	900 mm dia	Per KM/M	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.79
	1000 mm dia	Per KM/M	4.37	4.37	4.37	4.37	4.37	4.37	4.37	4.37	4.37	4.37
	1100 mm dia	Per KM/M	9.73	9.73	9.73	9.73	9.73	9.73	9.73	9.73	9.73	9.73
	1200 mm dia	Per KM/M	13.60	13.60	13.60	13.60	13.60	13.60	13.60	13.60	13.60	13.60

Note: The above rates of BWSC pipes are based on the following raw materials' cost.

HR Plates - Rs.66250/- per MT (excluding all taxes and freight), M.S. Wire rods - Rs.60000/- per MT (excluding all taxes) Cement Cost Rs. 5200/- per MT (excluding all taxes)

The rates may be revised depending upon the increase/ decrease in the cost of raw materials as per the following method.

Revised Cost = Cost as per the above table + R1+R2+R3.

R1= Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of HR Plate $= (H2-H1)/1000 \times Wh$.

R2= Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of wire rods $= (W2-W1)/1000 \times Ww$.

R3= Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of Cement $= (C2-C1)/1000 \times Wc$.

H1 = Rs. 66250/- H2 = Cost of HR Plate (Rs. Per MT excluding all taxes and freight) at the time of preparation of estimate.

W1 = Rs. 60000/- W2 = Cost of Wire rods (Rs. Per MT excluding all taxes) at the time of preparation of estimate.

C1 = Rs. 5200/- C2 = Cost of Cement (Rs. Per MT excluding all taxes) at the time of preparation of estimate

Wh=Weight of HR Plate required (Kg.) per metre of pipe. Wc= Weight of Cement required (Kg.) per metre of pipe.

Ww = Weight of wire rods required (kg) per metre of pipe.

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

14. M.S. PIPES

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
1	2	3	4	5
1	Manufacture, supply and delivery of M.S Pipes conforming to IS 3589/2001 including in lining with cement mortar (1:2) 15mm thick using 4 numbers of 6mm dia M.S.Rings at each end of the pipe/food grade epoxy painting and out coating with cement mortar (1:3) 30mm thick by shortcreting or gunetting duly providing wire mesh of size 50x50x3mm including cost of all materials, labour charges, transportation to anywhere in T.G, but excluding all taxes.			
	500 mm dia	Metre	8.00	11810
	500 mm dia	Metre	10.00	14044
	600 mm dia	Metre	8.00	14029
	600 mm dia	Metre	10.00	16685
	700 mm dia	Metre	8.00	16195
	700 mm dia	Metre	10.00	19320
	800 mm dia	Metre	8.00	18331
	800 mm dia	Metre	10.00	21868
	800 mm dia	Metre	12.00	25415
	900 mm dia	Metre	8.00	20550
	900 mm dia	Metre	10.00	24441
	900 mm dia	Metre	12.00	28390
	1000 mm dia	Metre	8.00	22784
	1000 mm dia	Metre	10.00	27145
	1000 mm dia	Metre	12.00	31506
	1000 mm dia	Metre	14.00	35808
	1100 mm dia	Metre	10.00	29636
	1100 mm dia	Metre	12.00	34409
	1100 mm dia	Metre	14.00	39181
	1100 mm dia	Metre	16.00	44037
	1200 mm dia	Metre	10.00	32338
	1200 mm dia	Metre	12.00	37523
	1200 mm dia	Metre	14.00	42639
	1200 mm dia	Metre	16.00	47831
	1200 mm dia	Metre	18.00	53015
	1300 mm dia	Metre	10.00	34901
	1300 mm dia	Metre	12.00	40424

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
	1300 mm dia	Metre	14.00	46019
	1300 mm dia	Metre	16.00	51698
	1300 mm dia	Metre	18.00	57296
	1300 mm dia	Metre	20.00	62901
	1400 mm dia	Metre	10.00	37459
	1400 mm dia	Metre	12.00	43466
	1400 mm dia	Metre	14.00	49473
	1400 mm dia	Metre	16.00	55549
	1400 mm dia	Metre	18.00	61567
	1400 mm dia	Metre	20.00	67657
	1400 mm dia	Metre	22.00	73666
	1500 mm dia	Metre	10.00	40093
	1500 mm dia	Metre	12.00	46513
	1500 mm dia	Metre	14.00	52860
	1500 mm dia	Metre	16.00	59280
	1500 mm dia	Metre	18.00	65782
	1500 mm dia	Metre	20.00	72202
	1500 mm dia	Metre	22.00	78782
	1500 mm dia	Metre	24.00	85202
	1600 mm dia	Metre	10.00	42732
	1600 mm dia	Metre	12.00	49482
	1600 mm dia	Metre	14.00	56381
	1600 mm dia	Metre	16.00	63212
	1600 mm dia	Metre	18.00	70053
	1600 mm dia	Metre	20.00	76885
	1600 mm dia	Metre	22.00	83799
	1600 mm dia	Metre	24.00	90782
	1600 mm dia	Metre	26.00	97706
	1700 mm dia	Metre	10.00	45218
	1700 mm dia	Metre	12.00	52530
	1700 mm dia	Metre	14.00	59773
	1700 mm dia	Metre	16.00	66945
	1700 mm dia	Metre	18.00	74339
	1700 mm dia	Metre	20.00	81582
	1700 mm dia	Metre	22.00	88826
	1700 mm dia	Metre	24.00	96229
	1700 mm dia	Metre	26.00	103555
	1700 mm dia	Metre	28.00	110880
	1800 mm dia	Metre	10.00	47916
	1800 mm dia	Metre	12.00	55580
	1800 mm dia	Metre	14.00	63221
	1800 mm dia	Metre	16.00	70876
	1800 mm dia	Metre	18.00	78532

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
	1800 mm dia	Metre	20.00	86264
	1800 mm dia	Metre	22.00	94002
	1800 mm dia	Metre	24.00	101658
	1800 mm dia	Metre	26.00	109462
	1800 mm dia	Metre	28.00	117209
	1900 mm dia	Metre	10.00	50489
	1900 mm dia	Metre	12.00	58542
	1900 mm dia	Metre	14.00	66610
	1900 mm dia	Metre	16.00	74663
	1900 mm dia	Metre	18.00	82739
	1900 mm dia	Metre	20.00	90889
	1900 mm dia	Metre	22.00	99024
	1900 mm dia	Metre	24.00	107099
	1900 mm dia	Metre	26.00	115316
	1900 mm dia	Metre	28.00	123465
	2000 mm dia	Metre	10.00	53044
	2000 mm dia	Metre	12.00	61522
	2000 mm dia	Metre	14.00	69996
	2000 mm dia	Metre	16.00	78475
	2000 mm dia	Metre	18.00	87022
	2000 mm dia	Metre	20.00	95501
	2000 mm dia	Metre	22.00	104056
	2000 mm dia	Metre	24.00	112618
	2000 mm dia	Metre	26.00	121166
	2000 mm dia	Metre	28.00	129727
	2000 mm dia	Metre	30.00	138366
	2100 mm dia	Metre	12.00	64558
	2100 mm dia	Metre	14.00	73449
	2100 mm dia	Metre	16.00	82327
	2100 mm dia	Metre	18.00	91226
	2100 mm dia	Metre	20.00	100184
	2100 mm dia	Metre	22.00	109143
	2100 mm dia	Metre	24.00	118116
	2100 mm dia	Metre	26.00	127084
	2100 mm dia	Metre	28.00	136056
	2100 mm dia	Metre	30.00	145097
	2100 mm dia	Metre	32.00	154139
	2100 mm dia	Metre	34.00	163203
	2200 mm dia	Metre	12.00	67538
	2200 mm dia	Metre	14.00	76826
	2200 mm dia	Metre	16.00	86138
	2200 mm dia	Metre	18.00	95507
	2200 mm dia	Metre	20.00	104878

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
	2200 mm dia	Metre	22.00	114181
	2200 mm dia	Metre	24.00	123561
	2200 mm dia	Metre	26.00	133014
	2200 mm dia	Metre	28.00	142316
	2200 mm dia	Metre	30.00	151769
	2200 mm dia	Metre	32.00	161231
	2200 mm dia	Metre	34.00	170767
	2200 mm dia	Metre	36.00	180152
	2300 mm dia	Metre	12.00	70537
	2300 mm dia	Metre	14.00	80237
	2300 mm dia	Metre	16.00	89988
	2300 mm dia	Metre	18.00	99771
	2300 mm dia	Metre	20.00	109494
	2300 mm dia	Metre	22.00	119277
	2300 mm dia	Metre	24.00	129059
	2300 mm dia	Metre	26.00	138924
	2300 mm dia	Metre	28.00	148646
	2300 mm dia	Metre	30.00	158511
	2300 mm dia	Metre	32.00	168376
	2300 mm dia	Metre	34.00	178323
	2300 mm dia	Metre	36.00	188198
	2400 mm dia	Metre	12.00	73497
	2400 mm dia	Metre	14.00	83607
	2400 mm dia	Metre	16.00	93734
	2400 mm dia	Metre	18.00	103990
	2400 mm dia	Metre	20.00	114102
	2400 mm dia	Metre	22.00	124296
	2400 mm dia	Metre	24.00	134583
	2400 mm dia	Metre	26.00	144777
	2400 mm dia	Metre	28.00	154986
	2400 mm dia	Metre	30.00	165180
	2400 mm dia	Metre	32.00	175466
	2400 mm dia	Metre	34.00	185825
	2400 mm dia	Metre	36.00	196100
	2500 mm dia	Metre	14.00	87076
	2500 mm dia	Metre	16.00	97600
	2500 mm dia	Metre	18.00	108206
	2500 mm dia	Metre	20.00	118812
	2500 mm dia	Metre	22.00	129480
	2500 mm dia	Metre	24.00	140086
	2500 mm dia	Metre	26.00	150691
	2500 mm dia	Metre	28.00	161380
	2500 mm dia	Metre	30.00	171927
	2500 mm dia	Metre	32.00	182615

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
	2500 mm dia	Metre	34.00	193385
	2500 mm dia	Metre	36.00	204073
	2600 mm dia	Metre	14.00	90532
	2600 mm dia	Metre	16.00	101468
	2600 mm dia	Metre	18.00	112412
	2600 mm dia	Metre	20.00	123430
	2600 mm dia	Metre	22.00	134448
	2600 mm dia	Metre	24.00	145518
	2600 mm dia	Metre	26.00	156545
	2600 mm dia	Metre	28.00	167645
	2600 mm dia	Metre	30.00	178663
	2600 mm dia	Metre	32.00	189762
	2600 mm dia	Metre	34.00	200871
	2600 mm dia	Metre	36.00	212054
	2600 mm dia	Metre	38.00	223154
	2600 mm dia	Metre	40.00	234336
	2600 mm dia	Metre	42.00	245527
	2700 mm dia	Metre	18.00	116693
	2700 mm dia	Metre	20.00	128040
	2700 mm dia	Metre	22.00	139470
	2700 mm dia	Metre	24.00	150907
	2700 mm dia	Metre	26.00	162405
	2700 mm dia	Metre	28.00	173970
	2700 mm dia	Metre	30.00	185481
	2700 mm dia	Metre	32.00	196919
	2700 mm dia	Metre	34.00	208432
	2700 mm dia	Metre	36.00	220027
	2700 mm dia	Metre	38.00	231548
	2700 mm dia	Metre	40.00	243142
	2700 mm dia	Metre	42.00	254654
	2800 mm dia	Metre	18.00	120889
	2800 mm dia	Metre	20.00	132739
	2800 mm dia	Metre	22.00	144581
	2800 mm dia	Metre	24.00	156423
	2800 mm dia	Metre	26.00	168265
	2800 mm dia	Metre	28.00	180182
	2800 mm dia	Metre	30.00	192159
	2800 mm dia	Metre	32.00	204000
	2800 mm dia	Metre	34.00	215924
	2800 mm dia	Metre	36.00	227857
	2800 mm dia	Metre	38.00	239863
	2800 mm dia	Metre	40.00	251787
	2800 mm dia	Metre	42.00	263860

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
	2900 mm dia	Metre	18.00	125246
	2900 mm dia	Metre	20.00	137417
	2900 mm dia	Metre	22.00	149670
	2900 mm dia	Metre	24.00	161932
	2900 mm dia	Metre	26.00	174184
	2900 mm dia	Metre	28.00	186505
	2900 mm dia	Metre	30.00	198840
	2900 mm dia	Metre	32.00	211103
	2900 mm dia	Metre	34.00	223490
	2900 mm dia	Metre	36.00	235894
	2900 mm dia	Metre	38.00	248312
	2900 mm dia	Metre	40.00	260657
	2900 mm dia	Metre	42.00	273075
	3000 mm dia	Metre	18.00	129378
	3000 mm dia	Metre	20.00	142111
	3000 mm dia	Metre	22.00	154703
	3000 mm dia	Metre	24.00	167367
	3000 mm dia	Metre	26.00	180032
	3000 mm dia	Metre	28.00	192765
	3000 mm dia	Metre	30.00	205521
	3000 mm dia	Metre	32.00	218186
	3000 mm dia	Metre	34.00	231002
	3000 mm dia	Metre	36.00	243802
	3000 mm dia	Metre	38.00	256559
	3000 mm dia	Metre	40.00	269388
	3000 mm dia	Metre	42.00	282203
2	Cost of Laying, Jointing, Hydrostatic Filed Test Pressure, Including Cost of Site Welding, Jointing Materials And Cost of Transportation of Water Including Emptying Pipe Line After Completion Of Field Testing.			Rate in Rs.
	500 mm dia	Metre	8.00	949
	500 mm dia	Metre	10.00	972
	600 mm dia	Metre	8.00	1173
	600 mm dia	Metre	10.00	1197
	700 mm dia	Metre	8.00	1481
	700 mm dia	Metre	10.00	1510
	800 mm dia	Metre	8.00	1705
	800 mm dia	Metre	10.00	1738
	800 mm dia	Metre	12.00	1789
	900 mm dia		8.00	2070

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
	900 mm dia	Metre	10.00	2107
	900 mm dia	Metre	12.00	2168
	1000 mm dia	Metre	8.00	2290
	1000 mm dia	Metre	10.00	2330
	1000 mm dia	Metre	12.00	2397
	1000 mm dia	Metre	14.00	2428
	1100 mm dia	Metre	10.00	2404
	1100 mm dia	Metre	12.00	2475
	1100 mm dia	Metre	14.00	2509
	1100 mm dia	Metre	16.00	2578
	1200 mm dia	Metre	10.00	2478
	1200 mm dia	Metre	12.00	2556
	1200 mm dia	Metre	14.00	2593
	1200 mm dia	Metre	16.00	2666
	1200 mm dia	Metre	18.00	2742
	1300 mm dia	Metre	10.00	2555
	1300 mm dia	Metre	12.00	2640
	1300 mm dia	Metre	14.00	2679
	1300 mm dia	Metre	16.00	2761
	1300 mm dia	Metre	18.00	2840
	1300 mm dia	Metre	20.00	2949
	1400 mm dia	Metre	10.00	2809
	1400 mm dia	Metre	12.00	2900
	1400 mm dia	Metre	14.00	2940
	1400 mm dia	Metre	16.00	3026
	1400 mm dia	Metre	18.00	3114
	1400 mm dia	Metre	20.00	3148
	1400 mm dia	Metre	22.00	3332
	1500 mm dia	Metre	10.00	2877
	1500 mm dia	Metre	12.00	2972
	1500 mm dia	Metre	14.00	3017
	1500 mm dia	Metre	16.00	3108
	1500 mm dia	Metre	18.00	3201
	1500 mm dia	Metre	20.00	3325
	1500 mm dia	Metre	22.00	3359
	1500 mm dia	Metre	24.00	3487
	1600 mm dia	Metre	10.00	2943
	1600 mm dia	Metre	12.00	3046
	1600 mm dia	Metre	14.00	3095

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
	1600 mm dia	Metre	16.00	3193
	1600 mm dia	Metre	18.00	3293
	1600 mm dia	Metre	20.00	3420
	1600 mm dia	Metre	22.00	3515
	1600 mm dia	Metre	24.00	3672
	1600 mm dia	Metre	26.00	3845
	1700 mm dia	Metre	10.00	3016
	1700 mm dia	Metre	12.00	3124
	1700 mm dia	Metre	14.00	3175
	1700 mm dia	Metre	16.00	3278
	1700 mm dia	Metre	18.00	3385
	1700 mm dia	Metre	20.00	3521
	1700 mm dia	Metre	22.00	3662
	1700 mm dia	Metre	24.00	3815
	1700 mm dia	Metre	26.00	3983
	1700 mm dia	Metre	28.00	4162
	1800 mm dia	Metre	10.00	3339
	1800 mm dia	Metre	12.00	3451
	1800 mm dia	Metre	14.00	3507
	1800 mm dia	Metre	16.00	3612
	1800 mm dia	Metre	18.00	3728
	1800 mm dia	Metre	20.00	3871
	1800 mm dia	Metre	22.00	4019
	1800 mm dia	Metre	24.00	4182
	1800 mm dia	Metre	26.00	4360
	1800 mm dia	Metre	28.00	4546
	1900 mm dia	Metre	10.00	3821
	1900 mm dia	Metre	12.00	3945
	1900 mm dia	Metre	14.00	4000
	1900 mm dia	Metre	16.00	4115
	1900 mm dia	Metre	18.00	4235
	1900 mm dia	Metre	20.00	4385
	1900 mm dia	Metre	22.00	4541
	1900 mm dia	Metre	24.00	4711
	1900 mm dia	Metre	26.00	4897
	1900 mm dia	Metre	28.00	5100
	2000 mm dia	Metre	10.00	4830
	2000 mm dia	Metre	12.00	4958
	2000 mm dia	Metre	14.00	5016
	2000 mm dia	Metre	16.00	5136
	2000 mm dia	Metre	18.00	5261
	2000 mm dia	Metre	20.00	5420
	2000 mm dia	Metre	22.00	5471

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
	2000 mm dia	Metre	24.00	5650
	2000 mm dia	Metre	26.00	5847
	2000 mm dia	Metre	28.00	6057
	2000 mm dia	Metre	30.00	6395
	2100 mm dia	Metre	12.00	5568
	2100 mm dia	Metre	14.00	5632
	2100 mm dia	Metre	16.00	5755
	2100 mm dia	Metre	18.00	5891
	2100 mm dia	Metre	20.00	6056
	2100 mm dia	Metre	22.00	6229
	2100 mm dia	Metre	24.00	6414
	2100 mm dia	Metre	26.00	6620
	2100 mm dia	Metre	28.00	6646
	2100 mm dia	Metre	30.00	6996
	2100 mm dia	Metre	32.00	7047
	2100 mm dia	Metre	34.00	7459
	2200 mm dia	Metre	12.00	6207
	2200 mm dia	Metre	14.00	6274
	2200 mm dia	Metre	16.00	6403
	2200 mm dia	Metre	18.00	6522
	2200 mm dia	Metre	20.00	6543
	2200 mm dia	Metre	22.00	6703
	2200 mm dia	Metre	24.00	6899
	2200 mm dia	Metre	26.00	7114
	2200 mm dia	Metre	28.00	7345
	2200 mm dia	Metre	30.00	7704
	2200 mm dia	Metre	32.00	7917
	2200 mm dia	Metre	34.00	8121
	2200 mm dia	Metre	36.00	8631
	2300 mm dia	Metre	12.00	7048
	2300 mm dia	Metre	14.00	7115
	2300 mm dia	Metre	16.00	7252
	2300 mm dia	Metre	18.00	7399
	2300 mm dia	Metre	20.00	7577
	2300 mm dia	Metre	22.00	7790
	2300 mm dia	Metre	24.00	7972
	2300 mm dia	Metre	26.00	8195
	2300 mm dia	Metre	28.00	8240
	2300 mm dia	Metre	30.00	8610
	2300 mm dia	Metre	32.00	8837
	2300 mm dia	Metre	34.00	8988
	2300 mm dia	Metre	36.00	9573
	2400 mm dia	Metre	12.00	8485

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
	2400 mm dia	Metre	14.00	8556
	2400 mm dia	Metre	16.00	8699
	2400 mm dia	Metre	18.00	8850
	2400 mm dia	Metre	20.00	9039
	2400 mm dia	Metre	22.00	9235
	2400 mm dia	Metre	24.00	9446
	2400 mm dia	Metre	26.00	9679
	2400 mm dia	Metre	28.00	9930
	2400 mm dia	Metre	30.00	10200
	2400 mm dia	Metre	32.00	10435
	2400 mm dia	Metre	34.00	10731
	2400 mm dia	Metre	36.00	11116
	2500 mm dia	Metre	14.00	10450
	2500 mm dia	Metre	16.00	10597
	2500 mm dia	Metre	18.00	10789
	2500 mm dia	Metre	20.00	10953
	2500 mm dia	Metre	22.00	11155
	2500 mm dia	Metre	24.00	11374
	2500 mm dia	Metre	26.00	11619
	2500 mm dia	Metre	28.00	11879
	2500 mm dia	Metre	30.00	12156
	2500 mm dia	Metre	32.00	12458
	2500 mm dia	Metre	34.00	12777
	2500 mm dia	Metre	36.00	13112
	2600 mm dia	Metre	14.00	10678
	2600 mm dia	Metre	16.00	10833
	2600 mm dia	Metre	18.00	10998
	2600 mm dia	Metre	20.00	11197
	2600 mm dia	Metre	22.00	11409
	2600 mm dia	Metre	24.00	11639
	2600 mm dia	Metre	26.00	11891
	2600 mm dia	Metre	28.00	12159
	2600 mm dia	Metre	30.00	12451
	2600 mm dia	Metre	32.00	12761
	2600 mm dia	Metre	34.00	13092
	2600 mm dia	Metre	36.00	13439
	2600 mm dia	Metre	38.00	13814
	2600 mm dia	Metre	40.00	14205
	2600 mm dia	Metre	42.00	14612
	2700 mm dia	Metre	18.00	11092
	2700 mm dia	Metre	20.00	11303
	2700 mm dia	Metre	22.00	11521
	2700 mm dia	Metre	24.00	11760
	2700 mm dia	Metre	26.00	12022

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
	2700 mm dia	Metre	28.00	12301
	2700 mm dia	Metre	30.00	12603
	2700 mm dia	Metre	32.00	12922
	2700 mm dia	Metre	34.00	13267
	2700 mm dia	Metre	36.00	13629
	2700 mm dia	Metre	38.00	14014
	2700 mm dia	Metre	40.00	14416
	2700 mm dia	Metre	42.00	14912
	2800 mm dia	Metre	18.00	11328
	2800 mm dia	Metre	20.00	11541
	2800 mm dia	Metre	22.00	11768
	2800 mm dia	Metre	24.00	12019
	2800 mm dia	Metre	26.00	12287
	2800 mm dia	Metre	28.00	12574
	2800 mm dia	Metre	30.00	12885
	2800 mm dia	Metre	32.00	13221
	2800 mm dia	Metre	34.00	13576
	2800 mm dia	Metre	36.00	13817
	2800 mm dia	Metre	38.00	14212
	2800 mm dia	Metre	40.00	14636
	2800 mm dia	Metre	42.00	15077
	2900 mm dia	Metre	18.00	12890
	2900 mm dia	Metre	20.00	13115
	2900 mm dia	Metre	22.00	13347
	2900 mm dia	Metre	24.00	13605
	2900 mm dia	Metre	26.00	13883
	2900 mm dia	Metre	28.00	14185
	2900 mm dia	Metre	30.00	14507
	2900 mm dia	Metre	32.00	14849
	2900 mm dia	Metre	34.00	15216
	2900 mm dia	Metre	36.00	15607
	2900 mm dia	Metre	38.00	16015
	2900 mm dia	Metre	40.00	16448
	2900 mm dia	Metre	42.00	16904
	3000 mm dia	Metre	18.00	12995
	3000 mm dia	Metre	20.00	13223
	3000 mm dia	Metre	22.00	13466
	3000 mm dia	Metre	24.00	13730
	3000 mm dia	Metre	26.00	14022
	3000 mm dia	Metre	28.00	14330
	3000 mm dia	Metre	30.00	14663
	3000 mm dia	Metre	32.00	15019
	3000 mm dia	Metre	34.00	15399
	3000 mm dia	Metre	36.00	15799

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
	3000 mm dia	Metre	38.00	16224
	3000 mm dia	Metre	40.00	16673
	3000 mm dia	Metre	42.00	17142

The above rates of MS Spiral pipes are based on the following raw materials cost.

MS Plates = Rs 68000/- Per MT (excluding all taxes). The rates may be revised depending upon the increase/decrease in the cost of raw materials as per the following method.

Revised Cost = Cost as per the above table "R₁". R₁ = Variation (Increase/Decrease) in cost (Rs. Per metre) due to change in cost of MS Plates = $(M_2 - M_1) / 1000 \times W_m$, M₁ = Rs.68000/- , M₂ = Cost of MS Plates (Rs. Per MT excluding all taxes) at the time of preparation of estimate, W_m = Weight of MS Plates required (Kg) per meter of pipe.

Note: The duties and taxes as applicable shall be added as per rules at the time of preparation of estimate.

15. HDPE PIPES (PE - 100 GRADE) FOR WATER SUPPLY

Sl.No	Description	6.0 kg/ sqcm (SDR 21)	8.0 kg/ sqcm (SDR 17)	10.0 kg/ sqcm (SDR 13.6)	12.5 kg/ sqcm (SDR 11)	16.0 kg/ sqcm (SDR 9)
1	2	3	4	5	6	7
I	Manufacture, supply, & delivery of High Density Polyethylene pipes (PE-100 Grade) for water supply conforming to IS 4984-2016 including transportation to any where in T.G, but excluding GST and specials etc., complete. (Supply upto 90 mm dia in coil & above 90 mm dia stright length in 6 M.)					
		Rate per Meter in Rs.				
	OD 20 mm					36
	OD 25 mm					45
	OD 32 mm			45	60	73
	OD 40 mm		58	69	90	111
	OD 50 mm	72	90	107	138	173
	OD 63 mm	112	135	167	223	271
	OD 75 mm	157	196	238	314	385
	OD 90 mm	225	274	336	440	556
	OD 110 mm	375	412	496	666	816
	OD 125 mm	440	529	646	859	1046
	OD 140 mm	549	665	809	1082	1326
	OD 160 mm	722	871	1058	1410	1710
	OD 180 mm	905	1094	1337	1774	2162
	OD 200 mm	1127	1354	1644	2199	2675
	OD 225 mm	1443	1743	2133	2778	3373
	OD 250 mm	1782	2152	2628	3443	4173
	OD 280 mm	2225	2698	3329	4322	5250
	OD 315 mm	2810	3423	4169	5448	6636
	OD 355 mm	3535	4293	5223	6918	8464
	OD 400 mm	4573	5536	6732	8770	10696
	OD 450 mm	5713	6898	8419	11088	13420
	OD 500 mm	7036	8526	10387	13731	16156
	OD 560 mm	8230	9957	12099	15527	
	OD 630 mm	10358	12592	15323	18515	
	OD 710 mm	13236	15976	19435		
	OD 800 mm	16755	20292	24790		
	OD 900 mm	21227	25688			
	OD 1000 mm	26225				

Note:-

Taxes extra as applicable at the time of supply.

The resin cost adopted for the above rates are

For PE - 100 grade Rs. 1,17,240/- per MT. (Excluding Taxes)

The variation in cost of HDPE pipes due to increase / decrease in raw material cost shall be allowed as per the following price variation formula.

Price variation formula as follows:

$P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95$ (for increase in raw material cost)

$P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95$ (for decrease in raw material cost)

P2 = Revised pipe price in Rs. Per Metre Excluding Taxes

P1 = Existing pipe price in Rs. Per Metre Excluding Taxes

A2 = Revised price of raw material Rs. Per MT Excluding Taxes

A1 = Existing price of raw material Rs. Per MT Excluding Taxes

M = Weight of pipe in Kgs per Metre as per weight chart.

16. H.D.P.E FITTINGS

Sl. No	Manufacture, Supply, & Delivery of HDPE fittings conforming to IS 4984 - 1995 including transportation to anywhere in T.G. Excluding taxes.	Rate per Each in Rs.
I (a)	PIPE ENDS LONG NECK	
	OD 50 mm	58
	OD 63 mm	74
	OD 75 mm	89
	OD 90 mm	115
	OD 110 mm	159
	OD 125 mm	287
	OD 140 mm	289
	OD 160 mm	403
	OD 180 mm	572
	OD 200 mm	736
	OD 225 mm	843
	OD 250 mm	988
	OD 280 mm	1104
	OD 315 mm	1274
	OD 355 mm	2662
	OD 400 mm	3548
	OD 450 mm	5904
	OD 500 mm	6572
(b)	MS FLANGES	
	OD 50 mm	96
	OD 63 mm	123
	OD 75 mm	155
	OD 90 mm	168
	OD 110 mm	175
	OD 125 mm	240
	OD 140 mm	260
	OD 160 mm	342
	OD 180 mm	483
	OD 200 mm	624
	OD 225 mm	780
	OD 250 mm	923
	OD 280 mm	1045
	OD 315 mm	1229
	OD 355 mm	2083
	OD 400 mm	2582
	OD 450 mm	3373
	OD 500 mm	3861
(c)	END CAPS	
	OD 50 mm	39
	OD 63 mm	49
	OD 75 mm	60
	OD 90 mm	80

	OD 110 mm	92
	OD 125 mm	124
	OD 140 mm	146
	OD 160 mm	223
	OD 180 mm	363
	OD 200 mm	396
	OD 225 mm	413
	OD 250 mm	588
	OD 280 mm	602
	OD 315 mm	822
	OD 355 mm	1267
	OD 400 mm	2217
	OD 450 mm	3566
	OD 500 mm	6572
(d)	REDUCERS Rate per Each	
	OD 50 mm x 63 mm	56
	OD 63 mm x 75 mm	80
	OD 75 mm x 90 mm	130
	OD 90 mm x 110 mm	180
	OD 110 mm x 125 mm	274
	OD 125 mm x 140 mm	380
	OD 140 mm x 160 mm	527
	OD 160 mm x 180 mm	731
	OD 180 mm x 200 mm	944
	OD 200 mm x 225 mm	1160
	OD 225 mm x 250 mm	1582
	OD 250 mm x 280 mm	2248
	OD 280 mm x 315 mm	3176
	OD 315 mm x 355 mm	3643
	OD 355 mm x 400 mm	5142
	OD 400 mm x 450 mm	5335
	OD 450 mm x 500 mm	6839
(e)	TEES	
	OD 50 mm	76
	OD 63 mm	122
	OD 75 mm	146
	OD 90 mm	256
	OD 110 mm	305
	OD 125 mm	457
	OD 140 mm	630
	OD 160 mm	1087
	OD 180 mm	1473
	OD 200 mm	2030
	OD 225 mm	2882
	OD 250 mm	3944
	OD 280 mm	5524
	OD 315 mm	7871
	OD 355 mm	11224

	OD 400 mm	16442
	OD 450 mm	23353
	OD 500 mm	32073
(f)	BENDS	
	OD 50 mm	49
	OD 63 mm	106
	OD 75 mm	139
	OD 90 mm	237
	OD 110 mm	311
	OD 125 mm	461
	OD 140 mm	606
	OD 160 mm	902
	OD 180 mm	1298
	OD 200 mm	1758
	OD 225 mm	2492
	OD 250 mm	3417
	OD 280 mm	4928
	OD 315 mm	6814
	OD 355 mm	9446
	OD 400 mm	14248
	OD 450 mm	20946
	OD 500 mm	28397
II	Supply and Fixing Electro Fusion Tapping saddle complying with BS EN 12201-3-2011, PN 12.5 rating & WRAS approved raw material as per BS 6920, manufactured from virgin resin of PE-80/PE-100 having blue/black colour using food grade compounded raw material for usage in drinking water system and having working pressure of 10 bar. The cost shall include testing of all materials, labour, inspection charges, transportation upto site, transit insurance, loading, unloading, stacking, providing and fixing etc. Complete as specified and directed by the Departmental Engineers, but excluding of all taxes.	Rate per Each in Rs.
	SIZE	Rs.
	(Main pipe outer diameter in mm & Tapping size in Inches)	
	63x1/2"	253
	63 x3/4"	294
	63 x1"	338
	75 x1/2"	266
	75 x3/4"	306
	75 x1	336
	90 x1/2"	280
	90 x3/4"	318
	90 x1"	348
	90 x 1 1/4"	348
	90 x 1 1/2"	348
	90 x2"	348
	110x1/2"	280
	110 x3/4"	318
	110 x1"	348
	110 x 1 1/4"	348
	110x1 1/2"	348

	110x2"	348
	125x1/2"	280
	125x3/4"	340
	125x1"	370
	125x1 1/4"	370
	125x1 1/2"	370
	125x2"	370
	140x1/2"	280
	140x3/4"	324
	140x1"	360
	140x1 1/4"	360
	140x1 1/2"	360
	140x2"	360
	160 x1/2"	294
	160 x3/4"	342
	160 x1"	372
	160 x 1 1/4"	372
	160 x 1 1/2"	372
	160 x 2"	372
	200 x 1/2"	294
	200 x 3/4"	355
	200 x 1"	385
	200 x 1 1/4"	385
	200 x 1 1/2"	385
	200x 2"	385
	250 x 1/2"	372
	250 x3/4"	408
	250 x1"	444
	250 x 1 1/4"	444
	250 x1 1/2"	444
	250 x 2"	444
	315 x 1/2"	396
	315 x3/4"	432
	315x1"	492
	315x1 1/4"	492
	315x1 1/2"	492
	315x2"	492
III	HOUSE SERVICE CONNECTIONS (COMPRESSION FITTINGS)	
A	Supply and Fixing of Compression Fittings shall comply with ISO 17885 - 2015, PN-16 rating and manufactured from virgin resin of PE-80 having blue colour. Raw material must be WRAS Approved as per BS 6920 for effect on water quality intended for human consumption. Compression fittings should have moulded-in SS 304 threaded insert outlet with thread dimension conforming to IS 554/ISO 7. The cost shall include testing of all materials, labour, inspection charges, transportation up to site, transit insurance, loading, unloading, stacking, providing and fixing etc. Complete as specified and directed by the Departmental Engineers, but excluding all taxes.	Rate per each in Rs.

1	Compression Male/ Female threaded adapter with SS Insert D20mmx1/2"	108
2	Compression Male/Female threaded adapter with SS Insert D25mmx3/4"	144
3	Compression Male/Female threaded adapterwith SS Insert D32mmx1"	201
4	Compression Male/Female threaded elbow with SS Insert D20mmx1/2"	111
5	Compression Male/Female threaded elbow with SS Insert D25mmx3/4"	150
6	Compression Male/Female threaded elbow with SS Insert D32mmx1"	208
7	Double compression elbow 20mm	50
8	Double compression elbow 25mm	69
9	Double compression elbow 32mm	99
B	HOUSE SERVICE CONNECTIONS (Composite Strap Saddle for DI/CI Pipes)	
	Supply and Fixing of Composite Strap Saddle shall be of wrap around design, PN-16 rating. Body shall be manufactured using virgin compounded PE80/PE100 polymer with Stainless steel 304 grade stirrup plate mounted with PE straps(Engineering plastic) with Nut bolt joint. Sealing between the saddle and mains shall be obtained by using an elastomer seal(Underneath projection for self interlocking).The cost shall include testing of all materials, labour, inspection charges, transportation up to site, transit insurance, loading, unloading, stacking, providing and fixing etc. Complete as specified and directed by the Departmental Engineers, but excluding all taxes.	
	(Main pipe outer diameter in mm & Tapping size in Inches)	
1	100X1/2"	473
2	100X3/4"	527
3	100X1"	562
4	150X1/2"	494
5	150X3/4"	548
6	150X1"	583
7	200X1/2"	515
8	200X3/4"	569
9	200x1"	604
C	HOUSE SERVICE CONNECTIONS (Regulating Brass ferrule)	
	The cost shall include testing of all materials, labour, Inspection charges, Transportation upto site, transit insurance, loading, unloading, stacking, providing and fixing etc. complete as specified and directed by departmental engineers, but excluding of all taxes.	
1	1/2"	143
2	3/4"	234
3	1"	408
D	Electrofusion Couplers	
1	EF Coupler D20mm PE 100BK 4PIN	34
2	EF Coupler D25mm PE 100BK 4PIN	36
3	EF Coupler D32mm PE 100BK 4PIN	38
4	EF Coupler D40mm PE 100BK 4PIN	65
5	EF Coupler D50mm PE 100BK 4PIN	80
6	EF Coupler D63mm PE 100BK 4PIN	95
7	EF Coupler D75mm PE 100BK 4PIN	214
8	EF Coupler D90mm PE 100BK 4PIN	221
9	EF Coupler D110mm PE 100BK 4PIN	288
10	EF Coupler D125mm PE 100BK 4PIN	384
11	EF Coupler D140mm PE 100BK 4PIN	1111

12	EF Coupler D160mm PE 100BK 4PIN	985
13	EF Coupler D180mm PE 100BK 4PIN	1070
14	EF Coupler D200mm PE 100BK 4PIN	1287
15	EF Coupler D225mm PE 100BK 4PIN	1220
16	EF Coupler D250mm PE 100BK 4PIN	1636
17	EF Coupler D280mm PE 100BK 4PIN	2064
18	EF Coupler D315mm PE 100BK 4PIN	3005
E	EF ELBOW 90 Degree	
1	EF Elbow D20mm PE 100BK 4PIN	80
2	EF Elbow D25mm PE 100BK 4PIN	90
3	EF Elbow D32mm PE 100BK 4PIN	100
4	EF Elbow D40mm PE 100BK 4PIN	108
5	EF Elbow D63mm PE 100BK 4PIN	206
6	EF Elbow D75mm PE 100BK 4PIN	274
7	EF Elbow D90mm PE 100BK 4PIN	540
8	EF Elbow D110mm PE 100BK 4PIN	762
9	EF Elbow D125mm PE 100BK 4PIN	863
F	EF ELBOW 45 Degree	
1	EF Elbow D75mm PE 100BK 4PIN	309
2	EF Elbow D90mm PE 100BK 4PIN	615
G	EF EQUAL TEE	
1	EF Equal Tee D20mm PE 100BK 4PIN	75
2	EF Equal Tee D25mm PE 100BK 4PIN	82
3	EF Equal Tee D32mm PE 100BK 4PIN	96
4	EF Equal Tee D40mm PE 100BK 4PIN	127
5	EF Equal Tee D63mm PE 100BK 4PIN	307
6	EF Equal Tee D75mm PE 100BK 4PIN	402
7	EF Equal Tee D90mm PE 100BK 4PIN	573
8	EF Equal Tee D110mm PE 100BK 4PIN	645
9	EF Equal Tee D125mm PE 100BK 4PIN	1107
H	EF REDUCER	
1	EF Reducer D25X20mm PE 100BK 4PIN	40
2	EF Reducer D32X20mm PE 100BK 4PIN	44
3	EF Reducer D32X25mm PE 100BK 4PIN	49
4	EF Reducer D40X32mm PE 100BK 4PIN	62
5	EF Reducer D63X32mm PE 100BK 4PIN	103
6	EF Reducer D63X40mm PE 100BK 4PIN	109
7	EF Reducer D63X50mm PE 100BK 4PIN	114
8	EF Reducer D75X63mm PE 100BK 4PIN	242
9	EF Reducer D90X50mm PE 100BK 4PIN	334
10	EF Reducer D90X63mm PE 100BK 4PIN	474
11	EF Reducer D90X75mm PE 100BK 4PIN	495
12	EF Reducer D110X63mm PE 100BK 4PIN	570
13	EF Reducer D110X75mm PE 100BK 4PIN	593
14	EF Reducer D110X90mm PE 100BK 4PIN	616
15	EF Reducer D125X63mm PE 100BK 4PIN	737
16	EF Reducer D125X90mm PE 100BK 4PIN	793

I	EF END CAP	
1	EF End Cap D20mm PE 100BK 4PIN	72
2	EF End Cap D25mm PE 100BK 4PIN	74
3	EF End Cap D32mm PE 100BK 4PIN	76
4	EF End Cap D40mm PE 100BK 4PIN	200
5	EF End Cap D50mm PE 100BK 4PIN	259
6	EF End Cap D63mm PE 100BK 4PIN	176
7	EF End Cap D75mm PE 100BK 4PIN	412
8	EF End Cap D90mm PE 100BK 4PIN	529
9	EF End Cap D110mm PE 100BK 4PIN	626
10	EF End Cap D125mm PE 100BK 4PIN	686
11	EF End Cap D140mm PE 100BK 4PIN	1463
J	PP Clamp Saddle shall comply with AS/NZS 4793 or relevant international standards-Mechanical tapping saddles for water works purposes and designed for use with PVC/PE pipe as per IS 4985/ IS 4984 respectively. These saddles should be contoured to fit around the pipe. PP Saddles shall be blue with moulded SS female threaded outlets. Seal shall be thermoplastic elastomer rubber suitable for drinking water and SS nut-bolt-washer. Maximum working pressure rating of 10 bar.	Rate per each in Rs.
1	63X1/2"	133
2	63X3/4"	133
3	63X1"	133
4	75X1/2"	155
5	75X3/4"	155
6	75X1"	155
7	90X1/2"	177
8	90X3/4"	177
9	90X1"	177
10	110X1/2"	213
11	110X3/4"	213
12	110X1"	213
13	125X1/2"	254
14	125X3/4"	254
15	125X1"	254
16	140X1/2"	302
17	140X3/4"	302
18	140X1"	302
19	160X1/2"	361
20	160X3/4"	371
21	160X1"	371
22	180X1/2"	377
23	180X3/4"	471
24	180X1"	524
25	200X1/2"	398
26	200X3/4"	492
27	200X1"	545

Note: The above rates (Items from D to J) are exclusive of GST.

17. PVC PIPES

Sl. No.	Description	4.0 Kgs/cm ²	6.0 Kgs/cm ²	10.0 Kgs/cm ²
1	2	3	4	5
1	Manufacture, Supply and Delivery of Unplasticised PVCs Pipes for potable water supplies conforming to IS : 4985/2000 (3 rd revision) with bell ends (Socket) as per specification in light Grey/Natural Ivory Grey/ Any other Color (except White) inclusive of transportation to the sub-divisional stores anywhere in TG excluding Taxes.			
	DIA IN MM Rate/Metre	Rs.	Rs.	Rs.
	20			18
	25			25
	32			36
	40		36	58
	50		54	89
	63	59	86	128
	75	86	118	187
	90	119	171	265
	110	173	245	395
	125	225	315	515
	140	280	403	639
	160	369	524	838
	180	471	674	1073
	200	571	821	1308
	225	766	1105	1757
	250	887	1351	2132
	280	1160	1706	2696
	315	1468	2145	3403
	355	1923	2791	
	400	2425	3550	

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

The resin cost adopted for the above rates is Rs.80,320/- per MT (Basic rate excluding Taxes)

The variation in cost of PVC pipes due to increase / decrease in raw material cost shall be allowed subject to the following price variation formula.

The price variation formula to be adopted is as follows:

$P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95$ (for increase in raw material cost)

$P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95$ (for decrease in raw material cost)

P2 = Revised pipe price in Rs. Per Metre, P1 = Existing pipe price in Rs. Per Metre

A2 = Revised price of raw material Rs. Per MT, A1 = Existing price of raw material Rs. Per MT

M = Weight of pipe in Kgs per Metre as per weight chart.

18. NON- PRESSURE P.V.C.U PIPES

Code No	Description	Rate per Meter in Rs.
1	2	3
	Manufacture, Supply, & Delivery of unplasticized Non-pressure polyvinyl chloride(PVC-U) pipes of dark (any shade of brown) for use in underground drainage & sewerage system conforming to IS 15328/2003) <u>with solvent cement jointing</u> as per specification inclusive of transportation to the sub-divisional stores anywhere in T.G, excluding Taxes.	
	Pipe Series (S25)	
	OD 160 mm	313
	OD 200 mm	479
	OD 250mm	741
	OD 315 mm	1169
	Pipe Series (S20)	
	OD 125 mm	245
	OD 160 mm	389
	OD 200 mm	590
	OD 250mm	920
	OD 315 mm	1445
	Pipe Series (S16.5)	
	OD 110 mm	214
	OD 125 mm	288
	OD 160 mm	452
	OD 200 mm	702
	OD 250mm	1086
	OD 315 mm	1719

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

The resin cost adopted for the above rates is Rs. 80,320/- per MT (Basic rate, excluding Taxes)

The variation in cost of PVC pipes due to increase / decrease in raw material cost shall be allowed subject to the following price variation formula.

The price variation formula to be adopted is as follows:

$P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95$ (for increase in raw material cost)

$P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95$ (for decrease in raw material cost)

P2 = Revised pipe price in Rs. Per Metre

P1 = Existing pipe price in Rs. Per Metre

A2 = Revised price of raw material Rs. Per MT

A1 = Existing price of raw material Rs. Per MT

M = Weight of pipe in Kgs per Meter as per weight chart.

19. NON- PRESSURE P.V.C.U PIPES

Code No	Description	Rate per Meter in Rs.
1	2	3
	Manufacture, supply, & delivery of un-plasticized Non-Pressure Polyvinyl Chloride(PVC-U) pipes of dark (any shade of Brown) for use in underground drainage & sewerage system conforming to IS 15328/2003) with <u>Elastomeric Seal Ring Joints</u> (Ringtite PVC Pipes) as per specification inclusive of transportation to the Sub-Divisional stores any where in T.G, excluding Taxes.	
	Pipe Series (S25)	
	OD 160 mm	336
	OD 200 mm	509
	OD 250mm	789
	OD 315 mm	1243
	Pipe Series (S20)	
	OD 125 mm	261
	OD 160 mm	412
	OD 200 mm	627
	OD 250mm	976
	OD 315 mm	1533
	Pipe Series (S16.5)	
	OD 110 mm	228
	OD 125 mm	307
	OD 160 mm	482
	OD 200 mm	742
	OD 250mm	1154
	OD 315 mm	1819

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

The resin cost adopted for the above rates is Rs. 80,320/- per MT (Basic rate excluding Taxes)

The variation in cost of PVC pipes due to increase / decrease in raw material cost shall be allowed subject to the following price variation formula.

The price variation formula to be adopted is as follows:

$P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95$ (for increase in raw material cost)

$P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95$ (for decrease in raw material cost)

P2 = Revised pipe price in Rs. Per Metre

P1 = Existing pipe price in Rs. Per Metre

A2 = Revised price of raw material Rs. Per MT

A1 = Existing price of raw material Rs. Per MT

M = Weight of pipe in Kgs per Metre as per weight chart.

20. CENTRIFUGALLY CAST (SPUN) IRON PRESSURE PIPES

Sl. No.	Description	Unit	Rate in Rs.		
1	2	3	4	5	6
I	Socket and Spigot Centrifugally Cast (Spun) Iron pressure pipes for water, Gas and Sewage conforming to specification No: IS 1536/2001 (third revision) with amdt. No: 1 & 2 in standard lengths of 3.66 m, 4 m, 4.5m, 5 m, 5.5 m & 6 m and details given below, suitable either for lead jointing or rubber gasket (push on) jointing at purchasers option at ex-factory excluding transportation & taxes.		LA Class (Rs)	A Class (Rs)	B Class (Rs)
	Nominal dia (in MM)				
	80	Rmt	1332	1446	1554
	100	Rmt	1633	1796	1918
	125	Rmt	2089	2282	2458
	150	Rmt	2565	2809	3027
	200	Rmt	3747	4067	4399
	250	Rmt	5050	5498	5948
	300	Rmt	6510	7120	7713
	350	Rmt	8271	8972	9732
	400	Rmt	10069	11003	11876
	450	Rmt	12164	13364	14414
	500	Rmt	14321	15599	16877
	600	Rmt	19001	20744	22469
	700	Rmt	24792	27086	29263
	750	Rmt	27767	30359	32934
	800	Rmt	31081	33866	36635
	900	Rmt	37870	42601	44770
	1000	Rmt	45497	49699	53714
II	Conveyance of Centrifugally Cast (Spun) Iron Pressure Pipes and accessories including loading at Factory, un-loading at site and stacking for the following sizes. (The Minimum distance/lead in Km for destination below 100 Km to be taken as 100 Km)		Class		
	SIZE IN MM UNIT		LA	A	B
	80 Per KM/RMT		0.32	0.32	0.32
	100 Per KM/RMT		0.32	0.32	0.32
	125 Per KM/RMT		0.48	0.48	0.48
	150 Per KM/RMT		0.48	0.48	0.48
	200 Per KM/RMT		0.81	0.81	0.81
	250 Per KM/RMT		0.98	0.98	0.98
	300 Per KM/RMT		1.31	1.31	1.31

	350 Per KM/RMT		1.79	1.79	1.79
	400 Per KM/RMT		2.10	2.10	2.10
	450 Per KM/RMT		2.44	2.44	2.44
	500 Per KM/RMT		2.91	2.91	2.91
	600 Per KM/RMT		2.91	2.91	2.91
	700 Per KM/RMT		2.91	2.91	2.91
	750 Per KM/RMT		4.86	4.86	4.86
	800 Per KM/RMT		8.25	8.25	8.25
	900 Per KM/RMT		8.25	8.25	8.25
	1000Per KM/RMT		8.25	8.25	8.25

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

Price Variation Formula due to Increase / Decrease in the cost of pig iron.

$$P2 = P1 + (R2 - R1) / 1000 * M * 1.0$$

Where M = Weight of pipe in kg per metre.

P2 = Revised rate of pipe in Rs. per Rmt.

P1 = Rate of pipe in Rs. per Rmt. as per above table.

R2 = Price of Pig Iron (Rs per MT excluding Taxes and freight) at the time of preparation of estimate.

R1 = Price of Pig Iron (Rs per MT excluding Taxes and freight) at the time of preparation of SoR
= Rs. 52,000/-

21.DUCTILE IRON PRESSURE PIPES

Sl. No.	Description	Unit	Rate in Rs.	
1	2	3	4	5
1	Centrifugally cast (Spun) Ductile Iron pressure pipes for water, gas and sewage with <u>Socket Spigot ends</u> conforming to IS.: 8329/2000 in standard working lengths of 4, 5 5.5 & 6 meter for classification K9 & K7 suitable for push-on-joint (rubber gasket d jointing) with cement mortar lining inside the pipes with outside zinc coating. Rates are ex-factory, excluding transportation & taxes.			
	Nominal Dia in mm	Rmt	K7	K9
	100	Rmt	1167	1390
	150	Rmt	1651	2072
	200	Rmt	2261	2776
	250	Rmt	3013	3649
	300	Rmt	3849	4622
	350	Rmt	4831	5760
	400	Rmt	5838	6928
	450	Rmt	6977	8280
	500	Rmt	8283	9634
	600	Rmt	10999	12714
	700	Rmt	14166	16347
	750	Rmt	15840	18350
	800	Rmt	17564	20266
	900	Rmt	21402	24679
	1000	Rmt	25430	29319
	1100	Rmt	-	32222
	1200	Rmt	-	37572
2	Centrifugally cast (Spun) Ductile Iron pressure pipes for water, gas and sewage <u>with plain ends</u> conforming to IS:8329/2000in standard working lengths of 4, 5, 5.5 & 6 meter for classification K9 & K7 with cement mortar lining inside the pipes with outside zinc coating. Rates are ex-factory, excluding transportation & taxes.			
	Nominal Dia in mm		K7	K9
	100	Rmt	1025	1288
	150	Rmt	1487	1910
	200	Rmt	2054	2585
	250	Rmt	2680	3419
	300	Rmt	3478	4323
	350	Rmt	4355	5373
	400	Rmt	5247	6458
	450	Rmt	6241	7646
	500	Rmt	7402	9047
	600	Rmt	9780	11752
	700	Rmt	12781	14901

	750	Rmt	14258	16697
	800	Rmt	15810	18436
	900	Rmt	19115	22293
	1000	Rmt	22725	26501
	1100	Rmt		29144
	1200	Rmt		33859
3	Centrifugally cast (Spun) Ductile Iron pressure pipes with <u>flanged (welded) ends</u> for water, gas, sewage conforming to IS: 8329/2000 in standard working lengths of 1,2,3, 4, 5 mts for classification K9 with cement mortar lining inside the pipes with outside zinc coating. Rates are ex-factory, excluding transportation & taxes.			
	Nominal Dia in mm		1.0 Mt. Length	2.0 Mt.Length
	100	Each	3917	5344
	150	Each	5611	7731
	200	Each	7549	10476
	250	Each	9898	13799
	300	Each	12504	17452
	350	Each	19275	25398
	400	Each	23167	30555
	450	Each	27935	36658
	500	Each	33980	44202
	600	Each	48030	61473
	700	Each	57096	74156
	800	Each	70489	91594
	900	Each	84121	109641
	1000	Each	104479	133899
	1100	Each	122067	154345
			3.0 Mt. Length	4.0 Mt. Length
	100	Each	6770	9215
	150	Each	9853	11368
	200	Each	13407	15636
	250	Each	17701	20703
	300	Each	22393	26296
	350	Each	31523	35843
	400	Each	37942	42767
	450	Each	45376	50995
	500	Each	54425	60929
	600	Each	74915	83071
	700	Each	91218	101885
	800	Each	112698	125966
	900	Each	135164	151398
	1000	Each	168430	186769
	1100	Each	187043	224916

			5.0 Mt. Length	
	100	Each	9112	
	150	Each	13477	
	200	Each	18563	
	250	Each	24602	
	300	Each	31249	
	350	Each	41967	
	400	Each	50147	
	450	Each	59712	
	500	Each	71139	
	600	Each	96492	
	700	Each	118923	
	800	Each	147042	
	900	Each	180735	
	1000	Each	217069	
	1100	Each	248307	
4	Conveyance of Ductile Iron Pressure Pipes and accessories including loading at Factory, unloading at site and stacking for the following sizes	Class		Welded Double Flanged Pipes
	SIZE IN MM UNIT	K7	K9	K9
	100 Per KM/RMT	0.29	0.29	0.42
	150 Per KM/RMT	0.42	0.42	0.54
	200 Per KM/RMT	0.42	0.54	0.82
	250 Per KM/RMT	0.54	0.69	1.11
	300 Per KM/RMT	0.82	0.82	1.38
	350 Per KM/RMT	0.96	1.11	1.65
	400 Per KM/RMT	1.11	1.23	1.93
	450 Per KM/RMT	1.38	1.52	2.35
	500 Per KM/RMT	1.65	1.79	2.75
	600 Per KM/RMT	2.35	2.35	3.58
	700 Per KM/RMT	3.44	3.44	5.24
	750 Per KM/RMT	4.13	4.13	6.31
	800 Per KM/RMT	7.02	7.02	10.44
	900 Per KM/RMT	7.02	7.02	10.44
	1000Per KM/RMT	7.02	7.02	10.44
	1100Per KM/RMT	7.02	7.02	
	1200Per KM/RMT	7.50	7.50	
5	Supply and Delivery of Polyethylene (PE) Sleeves for Ductile Iron Pipes used to guard the pipe against corrosion.			
	DIA IN MM			
	100 mm dia		RMT	41.00
	150 mm dia		RMT	50.00
	200 mm dia		RMT	64.00
	250 mm dia		RMT	74.00
	300 mm dia		RMT	81.00

	350 mm dia		RMT	91.00
	400 mm dia		RMT	127.00
	450 mm dia		RMT	127.00
	500 mm dia		RMT	154.00
	600 mm dia		RMT	154.00
	700 mm dia		RMT	200.00
	750 mm dia		RMT	200.00
	800 mm dia		RMT	200.00
	900 mm dia		RMT	227.00
	1000 mm dia		RMT	227.00
	1100 mm dia		RMT	227.00
6	Additional price for HAC(high alumina cement motar lining)			
	DIA IN MM			
	100 mm dia		RMT	57
	150 mm dia		RMT	85
	200 mm dia		RMT	113
	250 mm dia		RMT	149
	300 mm dia		RMT	188
	350 mm dia		RMT	233
	400 mm dia		RMT	278
	450 mm dia		RMT	330
	500 mm dia		RMT	386
	600 mm dia		RMT	509
	700 mm dia		RMT	649
	750 mm dia		RMT	725
	800 mm dia		RMT	806
	900 mm dia		RMT	978
	1000 mm dia		RMT	1167
	1100 mm dia		RMT	1389
	1200 mm dia		RMT	1539

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.
Price Variation Formula due to Increase / Decrease in the cost of pig iron.

$P2 = P1 + (R2 - R1) / 1000 * M * 0.96$, Where

M = Weight of pipe in kg per metre as per I.S.8329-1994.

P2 = Revised rate of pipe in Rs. per Rmt.

P1 = Rate of pipe in Rs. per Rmt. as per above table.

R2 = Price of Pig Iron(Rs per MT excluding Taxes and freight) at the time of preparation of estimate.

R1 = Price of Pig Iron(Rs per MT excluding Taxes and freight) at the time of preparation of SoR
=Rs.52,000/-

22.DUCTILE IRON FITTINGS

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
	Centrifugally cast (spun) Ductile Iron Fittings conforming to IS:9523/2000 having dimensions as per table. The rates mentioned here under are for fittings, zinc coated externally with inside mortar lining (with finishing as per class 13/IS 9523/2000) (ex-works) Excluding Transportation and Taxes.		
	For Double Socket branch flange Tee, All Socket Tees, Reducers, Flanged Sockets, Flanged Spigot, Double Socket Duck Foot Bend, Double Flange Duck/Foot bend, all socket Cross, all Flange Tee, all Flange Cross, Double Flange Reducer, Blank Flange, Mechanical Joints, Double Socket Bends, Double Flanged Bends etc.		
	Upto 500 mm dia	Kg	128.00
	Above 500 mm dia	Kg	140.00

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

23. RUBBER GASKETS SUITABLE FOR C.I/ D.I. S/S PIPES

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
1	Manufacture as per BIS:12820/2004 with S.B.R. Quality Rubber conforming to BIS: 5382/85, supply and delivery of Rubber Gaskets suitable for C.I/ D.I S/S pipes anywhere in T.G. F.O.R. Destination departmental stores including cost of material, loading, incidental handling with companies standard packing, transportation, unloading & stacking but excluding taxes.		
	80mm dia	Each	72
	100mm dia	Each	111
	125mm dia	Each	132
	150mm dia	Each	163
	200mm dia	Each	198
	250mm dia	Each	220
	300mm dia	Each	336
	350mm dia	Each	425
	400mm dia	Each	462
	450mm dia	Each	497
	500mm dia	Each	690
	600mm dia	Each	818
	700mm dia	Each	1087
	750mm dia	Each	1208
	800mm dia	Each	1447
	900mm dia	Each	1747
	1000mm dia	Each	1911

24. CI PIPES AND SPECIALS

Sl. No.	Description	Quality or sort	Rate/ Kg including packing, forwarding, Transit risk and delivery any where in T.G. Rs.
1	2	3	4
	Manufacture, Supply and Delivery of Cast Iron Fittings (spls.) Conforming to IS. No. 7181/1986, 5531/1988, 3950/1979 and C.I.D Joints conforming to IS No.8794/1988 at site of work anywhere in T.G. Including, loading, unloading, transportation to site of work stacking at site transit risk and package, excluding all taxes.	I.S. No. 7181/1986 5531/1988 3950/1979 & 8794/1988	72.88

Foot Note: The rate of CI pipes, CI Specials and CID Joints etc., which are to be incorporated in the SoR are based on the following raw materials cost.

Pig Iron: Rs.52,000/- per M.T.(Excluding Taxes and freight)

Coke : Rs.34,650/- per M.T. .(Excluding Taxes)

The rates may be revised depending upon the increase/decrease in the cost of raw materials as per the following method. For every increase/decrease of Rs.1000/- in the cost of raw materials or part there of proportionately.

In respect of Pig Iron: The increase/decrease in cost of CI Specials per Kg is 3.43%.

In respect of coke: The increase/decrease in cost of CI Specials per Kg is 0.67%.

The above price is at site of work , Taxes extra as applicable at the time of supply.

Note: The taxes as applicable shall be added as per rules at the time of preparation of estimate.

25. WATER HAMMER CONTROL DEVICES**(Rate Each in Rs.)**

Sl. No.	Description	TEST PRESSURE				Additional charges for Flanged ended valves
		10 Kgs/cm ²	15 Kgs/cm ²	20 Kgs/cm ²	25 Kgs/cm ²	
1	2	3	4	5	6	7
1	Manufacture, supply and delivery of zero velocity valve/ PSLV with CI body with flanged ends as per AWWA, ex-factory excluding transportation etc., complete.					
	DIA IN MM Rate/Each	Rs.	Rs.	Rs.	Rs.	
	150	66761	77929	82534	90790	
	200	69746	80207	86224	94844	
	250	78693	90496	97284	107013	
	300	88559	101843	109484	120430	
2	Manufacture, Supply and delivery of zero velocity valve/ PSLV with MS Fabricated Body with Plain ends. as per AWWA, Ex-factory excluding transportation etc. Complete.					
	DIA IN MM Rate/ Each	Rs.	Rs.	Rs.	Rs.	Rs.
	350	94324	108471	116607	128266	8173
	400	104261	119899	128891	141786	9854
	450	121263	139453	149912	164904	11776
	500	140150	161170	173259	190585	12740
	525/550	150537	171131	188479	207326	16464
	600	168552	193833	208371	229208	23486
	650	188674	207544	235905	254653	26559
	700	219922	242033	274962	296954	31726
	750	243595	267989	304524	328919	35619
	800	296742	341256	366847	403530	40138
	900	352697	405602	427824	479625	48552
	1000	427824	427824	427824	594508	61649
	1050	432102	432102	432102	625969	64116
	1100	545067	618062	673855	741242	71385
	1200	656037	721655	822120	885694	80758
	1400	984056	1082480	1233180	1328536	113566
	1500	1146593	1261241	1433209	1547739	115837
	1600	1169524	1286463	1461874	1578691	121137

3	Manufacture, Supply and delivery of Air Cushion valves / Quick Released damped Air Valves (QRDA) as per AWWA, Ex-factory excluding transportation etc., complete.					
	DIA IN MM Rate/Each	Rs.	Rs.	Rs.	Rs.	
	100	61050	70209	77228	84948	
	150	92776	106693	117361	129097	
	200	99025	113877	125267	137793	
4	Conveyance of valves and accessories including loading at factory and unloading, stacking at site of work.	5% on basic cost of valves				

Note: The taxes as applicable shall be added as per rules at the time of preparation of estimate.

26. CAST STEEL VALVES

Sl.No.	Description				
1	2	3	4	5	6
1	Manufacture, Supply and Delivery of Cast Carbon Steel rising / Non rising spindle sluice valve design standard as per IS:14846/2000 for Water Supply Scheme with SS Spindle & SS Working parts the grade of Cast Steel for body Bonnet, Dome, Stool Cover, Wedge, Stuffing Box, Gland Thrust Plate, shall be as per IS : 1030 / 1998. (The valve shall be used for High pressure schemes & pumping stations) excluding transportation etc., complete. ISI Marked	Class-150 Body 425PSI Seat 300 PSI PN-20	Class-300 Body 1100 PSI Seat 750 PSIPN-30	for Enclosed Spur Gear Arrangement.	
	Rate/Each			Class 150	Class 300
	DIA IN MM	Rs.	Rs.	Rs.	Rs.
	40	5443	10885		
	50	8968	16326		
	65	11223	20408		
	80	13461	24490		
	100	17952	32652		
	125	23023	41862		
	150	26936	48978		
	200	43504	88435	53246	97289
	250	61231	139191	70973	148047
	300	77349	175820	87089	184675
	350	103142	234428	116424	246503
	400	209520	476181	222803	488256
	450	234846	523275	248130	535352
	500	276289	627930	289572	640006
	600	315429	715841	328713	727917
	700	610138		623421	
	750	656187		674783	
	800	759795		778391	
	900	897941		916537	
	1000	1151206		1169802	
	1100	1243302		1261898	
	1200	1404471		1423067	
2	Manufacture, Supply and delivery of Cast Carbon Steel Bolted Cover Non Return Valve as per IS : 5312 / Part1 /2004. Round body heavy duty material spec. As per IS:1030/1998 with SS Hinge & Seat Rings. excluding transportation etc., complete. Dia in mm.				

	Rate/Each Rs.	PN-20	PN-30		
	40	5410	9838		
	50	8051	14651		
	65	10061	18315		
	80	12075	21978		
	100	16567	29305		
	125	20722	37677		
	150	22784	41443		
	200	34536	75351		
	250	48351	125586		
	300	69072	156983		
	350	92097	209311		
	400	188798	429086		
	450	211822	481413		
	500	248661	565138		
	600	287801	654093		
3	Manufacture, Supply and delivery of Cast Carbon Steel Multi Door Type Non return Valve as per IS; 5312/ Part II / 1984 Heavy duty material spec. as per 1030/1998 with SS hinges & Seat Rings excluding transportation and GST etc., complete.	PN-20			
		Rate/Each			
	500	418619			
	600	523275			
	700	627930			
	750	774448			
	800	1151206			
	900	1381446			
	1000	1507032			
	1100	1779136			
	1200	1800067			
4	Manufacture, Supply and delivery of Cast Carbon Steel D/F Butter fly Valves conforming to IS; 13095/1991 manually heavy duty Gear operation, excluding transportation and GST etc., complete.				
	DIA IN MM Rate/Each	PN-1.0/1.6	PN-2.5		
	300	79899	99601		
	350	107481	135062		
	400	129153	167459		
	450	156514	198105		

	500	178405	227657		
	600	207957	267059		
	700	326164	404968		
	750	404968	503473		
	800	444370	552726		
	900	503473	631531		
	1000	798991	996002		
	1100	996002	1191518		
	1200	1193013	1291518		
	1300	1597980	1784047		
	1400	1685540	1882552		
	1500	1784047	1981058		
	1600	2079563	2375081		
	1800	2572092	2769103		
	2000	3557148	3852664		
5	Conveyance of valves and accessories including loading at factory and unloading, stacking at site of work.	5% on basic cost of valves			

Note : Taxes as applicable shall be added as per rules at the time of preparation of estimate.

27. DI D/F VALVES Rate/Each in Rs.

Sl. No.	Description	TEST PRESSURE			
1	2	3	4	5	6
1	Manufacture, supply and delivery of Single Chamber DI <u>Air Valve</u> with Body and cover in Ductile Iron of grade GGG-40/SG-400/15 or GGG-50/SG-500/7 or equivalent grade as per I.S.3896-part2-1985 and subsequent revisions. All internal parts such as float, shell etc., all cover bolts, of stainless steel, and Gaskets and seals of EPDM food grade quality Epoxy powder coating (EP-P) inside and outside colour blue. Drilled as per requirement of the dept.				
	DIA IN MM	PN 10	PN 16	PN 25	
	25 (Screwed End)	8559	8559		
	32 (Screwed End)	17023	17023		
	40 (Screwed End)	17870	17870		
	50	30745	30745	39560	
	80	41016	41016	41016	
	100	47888	47888	55070	
	150	58298	58298	66625	
	200	63850	63850	74260	
	300	103455	103455	113905	
2	Manufacture, Supply and delivery of DI D/F <u>Gate Valves</u> (Soft Seated) Resilient seated soft sealing gate valves (Sluice valves) with body bonnet of ductile cast iron of grade GGG-40/SG- 400/15 or GGG-50/SG-500/7 or equivalent grade as per I.S.3896-part2-1985 and subsequent revisions, wedge fully rubber lined with EPDM food grade quality and seals of NBR and the valves should be of vacuum tight and 100% leak proof with face to face dimensions as per BS5163-89/IS14846-2000/DIN 3202 F 4. All the valves should be with Electrostatic powder coating both inside and outside pocket less body passage. Drilled as per requirement of the dept.				
	DIA IN MM	PN 10	PN 16	PN 25	
	50	7360	7360	12439	
	80	9426	9426	15337	
	100	12434	12434	17389	
	150	19577	19577	29004	
	200	32532	32532	48920	
	250	45058	45058	72663	
	300	68098	68098	117862	
	350	206179	206179	344900	
	400	216249	216249	350810	
	450 With By-pass & Gear	372041	372041	699327	
	500 With By-pass & Gear	395083	395083	742639	
	600 With By-pass & Gear	508754	508754	956304	
3	Manufacture, Supply and delivery of DI D/F <u>Butterfly Valves</u> with GGG-40/SG-400/15 or GGG-50/SG-500/7 or equivalent grade as per				

	I.S.3896-part 2-1985 and subsequent revisions, Double eccentrically Disc., with renewable soft seal on the disc and Body seat face of stainless steel / nickel weld overlay, with powder or liquid Epoxy coating with minimum thickness of 250 microns applied on both body and disc inside and outside. Face to face dimensions as per AWWA C 504 or BS 5155 or IS:13095. Drilled as per requirement of dept.				
	DIA IN MM	PN 10	PN 16	PN 25	PN 40
	150	78461	78461	80993	107529
	200	85456	88230	103668	130748
	250	99568	102462	120012	183215
	300	118806	122304	136415	192382
	350	135933	148297	172720	209389
	400	171210	193973	225841	320123
	450	187958	208609	265678	
	500	189744	223971	356159	395586
	600	248686	351120	413392	433457
	700	490950	518029	778576	
	800	532249	554677	1136362	
	900	696076	696076		
	1000	872565	872565	1647797	
	1100	1003450	1003450		
	1200	1169137	1169137	1840795	
	1400	2512703	2512703		
	1600	2996167	2996167		
	1800	3674971	3674971		
	2000	6277801	6277801		
	2200	9063238	9063238		
4	Manufacture, Supply and delivery of DI D/F <u>Swing Check Valves</u> Slanted/Straight seated with metallic, corrosion proof and wear resistant seat faces resilient seat, Body and Disc of ductile cast iron GGG-40/SG 400/15 or GGG-50/SG-500/7 or equivalent grade as per IS 3896(part2)-1985 and subsequent revisions. All the inside and outside of the body is to be coated with double coating of epoxy liquid. Drilled as per requirement of dept.. Specification and Dimensions as per I.S 5312 or equivalent codes.				
	DIA IN MM	PN 10	PN 16	PN 25	PN 40
	100	31090	34544		
	150	52206	58007		
	200	79170	83880	123017	161019
	250	87128	92406	149407	188790
	300	109214	115710	181886	230443
	350	128539	136253	206897	251555
	400	156146	165484	209494	272424
	500	198533	210552	265521	349402
	600	297869	315775	391423	505935
	700	429941	468873	573115	726768
	800	537581	585885	722674	915539

5	Manufacture, supply and delivery of DI (Ductile Iron) Wafer Butterfly valves conforming to IS 13095 (and its amendments). With hand lever below 150 mm, with Worm gear for 200 mm and above.				
	DIA IN MM	PN 10	PN 16		
	40	5330	5330		
	50	5330	5330		
	65	5767	5767		
	80	6289	6892		
	100	8842	9166		
	125	11111	11111		
	150	15005	15330		
	200	20359	20359		
	250	27092	27092		
	300	38121	38121		
	350	46260	50183		
6	Manufacture and supply of “Air Release - Vacuum Break - Surge Alleviation” Valve for potable water. Construction material Cylindrical Body of Ductile Iron GGG-50/SG-500-7, Three cylindrical Floats of High Density Poly Ethylene. Baffle Plate, Orifice venture and all construction bolts of stainless steel, coating internally and externally. Electrostatically applied epoxy (1) Flange connection as per IS 1538, (2) Female (BSP/NPT Threaded for sizes 25 mm				
	DIA IN MM	PN 10	PN 16	PN 25	
	25 mm dia	14073	-	-	
	50 mm dia	-	45353	45353	
	80 mm dia	-	71151	71151	
	100 mm dia	-	78454	78454	
	150 mm dia	-	160890	160890	
	200 mm dia	-	241636	241636	
7	Manufacturer and supply of Metal Seated Gate Valve Non- Rising Stem with by-pass & gear operated, for water and sewage applications& dimensions conforming to IS 14846-2000. Material construction Body, Bonnet, Wedge and Distance Piece of ductile iron GGG-50/SG500/7 DIN1693 or equivalent. Body seat, Wedge seat and Stem nut of Aluminum Bronze BS EN 1982 CC331G/equivalent, Stem of Stainless steel BS EN 100881.4057 or equivalent. 'O' Seal Body/Cover is of EPDM food grade Quality. Fastners is of Steel Sheraplex coated to BS 3692 Gr 8.8 or equivalent. Body and Bonnet internally and externally blue two pack epoxy to WIS 4-52-01 Class B. Leakage tested for seat 1.1 PN and body 1.5 x PN. Flange connection as per IS 1538, ISI Marked.				

	DIA IN MM	PN 10	PN 16		
	DN700	1303581	1303581		
	DN800	1648187	1648187		
	DN 900	1863121	1863121		
	DN 1000	2087471	2087471		
	DN 1100	2844366	2844366		
	DN 1200	3233031	3233031		

NOTE:-All the prices are ex-go down /ex-factory. Taxes Extra as applicable at the time of supply. Packaging and Transportation extra at 5% on basic cost. The duties and taxes as applicable may be added as per rules at the time of preparation of estimate. The grade of DI & conformation to specifications shall be certified by a third party Quality Control Agency approved by indenting authority at the cost of supplier.

28. SFRC MAN-HOLE FRAME WITH COVERS

Sl.No.	Description	Unit	Rate in Rs.
1	2	3	4
I	Manufacture as per BIS:12592 (Part 1&2) Supply & Delivery of manhole covers and frames with ISI marking anywhere in T.G., F.O.R. destination including, loading, un-loading & stacking at site but excluding all taxes, as applicable. <u>I.S.I</u> <u>Mark</u>		Rs.
a)	M.D. -10 with 500mm diaclear opening	Each	1965
b)	H.D.-20 with 500mm diaclear opening	Each	2533
C)	H.D.-10with 560mmdia clear opening(New item)	Each	1987
d)	H.D.-20 with 560mm diaclear opening	Each	2716
e)	H.D.-35 with 560mm diaclear opening.	Each	2911
f)	24x24 MD 10	Each	2142
g)	24x18 MD 10	Each	1971
h)	24x24 HD 20	Each	2408
i)	24x18 HD 20	Each	2453
II	Manufacture as per company's standard specification supply and delivery of encapsulated plastic steps for man holes anywhere in T.G. including cost of materials packing as per company's standards, loading, transportation, unloading and stacking at site of work etc, complete but excluding taxes and others etc., as applicable.	Each	195

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

29. CI and M.S. DISMANTLING JOINTS

Sl.No.	Description	Unit	Rate in Rs.
1	2	3	4
1	Manufacture, Supply and Delivery of C.I Dismantling Joints with both side flange end suitable for installation in between flange end pipes. These rates are excluding all Taxes and transportation charges etc., complete.		
	Nominal Dia. In MM		
	50	Each	5078
	80	Each	5559
	100	Each	7294
	125	Each	9379
	150	Each	10289
	200	Each	14591
	250	Each	17369
	300	Each	27791
2	Manufacture, Supply and Delivery of M.S. Dismantling Joints with both side flange end suitable for installation in between flange end pipes. Thickness as per IS: 7322. These rates are excluding all Taxes and transportation charges etc., complete		
	Nominal Dia. In MM		
	350	Each	65913
	400	Each	75529
	450	Each	81943
	500	Each	98077
	600	Each	114126
	700	Each	126965
	750	Each	130178
	800	Each	155855
	900	Each	162599
	1000	Each	194768
	1100	Each	210847
	1200	Each	243013
	1300	Each	275176
	1400	Each	307966
	1600	Each	340194
	1800	Each	402859
	2000	Each	501340
3	Conveyance of joints and accessories including loading at factory and unloading, stacking at site of work.		5% on basic cost
Note:	Taxes as applicable shall be added as per rules at the time of preparation of estimate.		

30. OTHER ITEMS

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
1	Supply and delivery of pig lead 99.99 % pure excluding all taxes.	Per Kg	330
2	Supply and delivery of lead wool best quality excluding all taxes.	Per Kg	182
3	Supply and delivery of spun yarn of best quality excluding all taxes.	Per Kg	130
4	Supply and delivery of rubber packing excluding all taxes.		
	a) 3 mm thick	Per Kg	111
	b) 6 mm thick	Per Kg	111
5	Supply and delivery of bolts and nuts with double washers excluding all taxes. (1/2" to 1")	Per Kg	As per I&CAD SoR

31. TRENCH LESS TECHNOLOGY WITH PIPE JACKING METHOD

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
1	Railway crossing/Road crossing/Canal crossing by adopting trenchless technology tunneling work through specialized pipe jacking method by erecting the equipment to true to the alignment and gradient, by hydraulic pipe jacking technique complete including tunneling, excavation in all types of soils excluding hard rock and construction of RCC chambers suitable to casing pipe pits, and conveyance charges of machinery and other required materials but excluding cost of encasing pipe, in co-ordination with the concerned authorities as per approved drawings and directed by the Engineer-in -Charge.		
	600 mm dia	Rmt	26460
	700 mm dia	Rmt	27405
	800 mm dia	Rmt	28665
	900 mm dia	Rmt	30098
	1000 mm dia	Rmt	31532
	1100 mm dia	Rmt	32965
	1200 mm dia	Rmt	34398
	1300 mm dia	Rmt	35831
	1400mm dia	Rmt	38698
	1500 mm dia	Rmt	42998

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

32. WATER METERS

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
A	Mechanical Flow meter (Domestic meters)		
1	Supply of magnetically coupled, multijet, inferential type, dry dial Class-B water meters (Screwed end) AMR compatible manufactured in accordance with ISO 4064 standards and its latest amendments/IS 779/1994 and its latest amendments and shall have ISI/EEC/MID pattern approval (valid life cycle certificate and IP 68 protection from FCRI, GOI). (excluding all taxes-with 3 years warranty)	Unit	Rate in Rs.
	15 mm Dia	Each	1331
	20 mm Dia	Each	1997
2	Installation & fixing cost of water meter.	Each	220
B	Electromagnetic Flow Meters (Bulk Flow Meter)		
	Supply & delivery of Electromagnetic Flow meter, manufacturer should have ISO 9001:2008 certification and flow meter testing conforming to ISO 17025; Flow meter Tube: SS 304; Flanges: Carbon Steel as per DIN PN 10 or higher rating as per requirement; Liner: Hard Rubber or PTFE suitable for drinking water application; Grounding: Grounding Rings SS 304 /Grounding Electrodes of material SS 316; Coil Housing and Junction Box: SS 304 /Die Cast Aluminum/ Carbon Steel with anticorrosive epoxy coating of minimum thickness 150 microns/ equivalent as per EN ISO-12944 standard (as per the site condition) ; Ingress Protection: IP 68 for sensor and IP 67 for transmitter; Flow Transmitter Accuracy: +/- 0.5% of the measured value for velocities 0.5 m/sec and above; Display: Digital LCD/LED (backlit LCD / LED) Display, Instantaneous flow, Bi- Directional flow and Totalized flow; Cable between Flow Head and Transmitter: Maximum 25 meters including PVC conduit; Surge Arrester: To be provided; Power Supply & Output: 230 V AC or 24 V DC as applicable to Site condition & 4-20 mA HART; Compatible to SCADA/WEB Based Data acquisition System; Flow meter test lab certification should be provided from NABL approved lab/FCRI ; Excluding all taxes with 5 years Warranty. (Make: M/s Krohne Marshall/Endress+Hauser/ Yokogawa /Siemens/ Emerson/ABB/ or equivalent make)	Unit	Rate in Rs.
	100 mm dia	Each	112332
	150 mm dia	Each	124542
	200 mm dia	Each	155826
	250 mm dia	Each	183810
	300 mm dia	Each	205458
	400 mm dia	Each	359172
	450 mm dia	Each	406564
	500 mm dia	Each	445539
	600 mm dia	Each	512027
	700 mm dia	Each	578544
	800 mm dia	Each	690012
	900 mm dia	Each	809438

	1000 mm dia	Each	866179
	1100 mm dia	Each	1434510
	1200 mm dia	Each	1564448
C	AMR Water Meters		
i)	Multijet (Domestic) AMR Water Meter		
	Supply installation and satisfactory field testing of Multijet Inferential Dry Dial screwed end Water Meters conforming to latest editions of IS 779/ISO 4064 with ISI/MID marking (PN-10). The water meters shall be manufactured with copper can/non magnetic metallic register and IP 68 protection. The module must be connected to meter without wire. The same model of the meter must have passed life cycle/Endurance test from FCRI after 2015. The meter should have IP 68 test report certificate conducted in FCRI. The RF based AMR accuracy test conducted at FCRI should also be submitted. The modules shall be warranted for 5 years battery life. The Module or meter interface unit shall be Radio Frequency based. The remote reading shall be two way communicating. The module should be battery operated and external power supply should not be required. The readings should be obtainable by either walkby or drive by on Android device. The module shall be fitted on the meter wirelessly and shall be with IP 68 protection. The IP 68 test report for module should have been conducted at FCRI. The radio frequency shall be as per Dept of Communications, Govt of India and supplier should specify the frequency of the AMR on the module. In case the RF band is free band, necessary documents from Dept. of Telecom, Govt of India shall be submitted along with declaration on a Rs.100 Stamp paper mentioning the band. The RF based meter reading software should have sync facility to upload the data back to CLOUD server after reading the meters from site using GPRS/Wifi. The AMR meters shall carry warranty of atleast 5 years from the date of delivery/date of installation which ever is earlier. The meter, module and AMR software shall be from the same manufacturer. Lot samples of the meters supplied shall be tested as per IS779 at FCRI for accuracy of meters. The rates are excluding GST.	Unit	Rate in Rs.
	15 mm	Each	7379
	20 mm	Each	8008
	25 mm	Each	8923
	40 mm	Each	10868
ii)	Woltman type (Bulk) AMR Meter		
	Supply, installation and field testing of Horizontal Woltman type hermetically sealed type water meters with IP 68 protection (PN-10/ PN-16). The meters shall be manufactured as per ISO 4064 - 1:1993 with MID marking. The meter must have passed life cycle/Endurance test from FCRI. The module should be battery operated by inbuilt. The data logger shall be capable of transmitting data on daily bases to central server through GSM/GPRS. The AMR data hourly shall be collected by MIU and stored. The MIU shall be connected to Data logger. The data logger should have inbuilt battery. The AMR meter should be capable of providing data like reverse flow, tampering, daily	Unit	Rate in Rs.

	flow rate distribution. The System shall send alerts for blocked meter, flow rate above limit, pressure below or above limits, back flow detection. The meters shall be installed with CI strainers. The AMR meter and battery shall carry warranty of atleast 5 years from the date of delivery/date of installation which ever is earlier. The data shall be accessible on web server as required by the Client. The rates are excluding of GST.		
	50 mm	Each	62462
	80 mm	Each	67267
	100 mm	Each	73033
	150 mm	Each	87448
	200 mm	Each	107627
	250mm	Each	142222
	300mm	Each	302702

33.INSTRUMENTATION

1	Ultrasonic Flow Meter:	Unit	Rate in Rs.
	Providing, installing and giving satisfactory test & trial of Ultrasonic Flow meter of ISO working on 85 -260 V AC, 50 HZ electric power supply of following type working on time of flight principle suitable for satisfactory continuous operation in all seasons & with following accessories, working conditions Specifications & duly tested as specified below:		
A)	Ultrasonic Clamp-on portable type Flow Meter (Single Channel)		
	Providing, installing and giving satisfactory test & trial of No ultrasonic clamp on portable type flow meter working on conditions & specifications, calibration, inspection, testing, training, guarantees and manufacturers test certificate/declaration copy along with accessories as mentioned above along with accessories like. 1)Magnetic Clamos - 1 Pair & 2)Suitable carrying case-1 No.	Each	304464
B)	Ultrasonic Clamp-on Fixed type Flow Meter (Single Channel)		
	Providing,installing and giving satisfactory test & trial of Ultrasonic damp on Fixed type flow meter working on conditions & specifications, calibration, inspection, testing, training, guarantees and manufacturers test certificate/ declaration copy along with accessories as mentioned in a (1) to (14) below	Each	296943
C)	Ultrasonic Insertion Fixed type Flow Meter (Single Channel)		
	Providing, installing and giving satisfactory test & trial of ultrasonic Insertion Fixed type flow meter working on conditions & specifications, calibration, inspection, testing, training, guarantees and manufacturers test certificate/ declaration copy along with accessories as mentioned in a (1) to (14) below & with inbuilt assembly to fix the insertion type transducer on the pipeline	Each	283843
a)	Mandatory Accessories:		
	1) Integrated signal converter transmitter enclosed in die cast aluminum case / any anticorrosive material conforming to IP-65 or better -1 No. 2) Pair of transducers (Sensors) conforming to IP-68 or better with junction boxes -1 No. 3) Stainless steel straps for mounting clamp on type sensors - 2 Nos. (only required for category A,B) 4) Grease count plant, 100 ml : Bottle - 5 Nos. (only required for category A,B) 5) Signal & power cables for each transducer -50 Mtrs length/each (insertion type flow meter) & 10 mtrs length /each (portable type flow meter) 6) a) for fixed type flow meter-UPS working on 230 V AC, 50 Hz or 24V DC power supply suitable for 24 hrs continuous operation.-1 No. (only required for category B,C). b) Built in portable type battery back up for minimum 5 Hrs continuous operation with spare battery and separate battery charger working on 230 V AC, 50 Hz power supply for charging battery-1 No. (only required for category A) c) Aluminium / anticorrosive carrying case for flow meter and all accessories (only required for category A) 7) Data storage capacity with built in or separate for date, time, actual flow rate, totaliser & error messages if any with storage capacity of 120 days and at 5 minutes interval data logging along with local indication and necessary cables and software to download		

data to laptop -1 No 8) Dot matrix printer of EPSON, WIPRO, WEP or Hewlett Packard make with built in or separate printer interface unit for printing of stored data with online / offline printing facility -1 No. 9) Proper earthing shall be provided for protection against high voltage surge (only required for category B,C) 10) Suitable over voltage protection unit for protection of instrument from higher voltage (upto 275 V-300 V AC & above) 11) M.S. sensor protection boxes with suitable size for above ground lines where construction of chamber is not possible. (only required for category B,C) 12) Magnetic clamp for metallic pipe lines and Nylon / SS strips, chain arrangement for clamp on sensors suitable for pipe diameters 50 mm to 3000 mm (only required for category A,B) 13) Battery powered ultrasonic thickness gauge along with charger, test sample, coupling agent and carrying case suitable measuring thickness of 1 mm to 100 mm (only required for category A) 14) 5 meter steel measurement tape with level bottle (only required for category A)		
15) Working Condition & Specifications		
a) Water Temp : 10° to 50° C b) Water Quality: Raw water, turbid in nature. Potable chlorinated water c) Operating pressures 0-15 Kg./cm² d) Pipeline MOC : Cl, DL, MS with /without mortar lined, Non-metallic pipes. e) Pipe diameter : > 1000 mm -4000 mm f) Flow -Up to 300 Mld g) Pipe Condition: Pipe shall be running full h) Ultrasonic flow meters shall be designed, manufactured to international standards with accuracy of +/- 2% of actual flow. The supplier should have full ISO -9000 series accreditation & facility for fully traceable calibration flow rig as per international standard i) Functional details: Freely programmable j) Measurement - Volumetric flow rate, totalized flow k) Flow direction- Forward & Reverse l) Display- LCD display with suitable lines, digits, segments, markers, for identification of current output. The digit shall be clear, bold & can be read from 1 Mtrs distance m) Out put- for current-4 m A-20mA HART (active/passive) for measuring flow in pipeline. Frequency output shall be 1 khz, Open collector, passive n) Status output-open collector o) Meter shall be suitable for remote facility p) Power supply-85-260 V AC(45-65 Hz)/20-55 V AC (45-65 Hz)/16-62 V DC q) Galvanic isolation- input & output galvanically isolated from power supply from the sensor and from each other r) instruments must carry "CE" mark s) Functionality verification check should be possible inline using recommended software tools t) Future upgradation to field bus foundation. Profibus should be possible with minimal changes		
16) Calibration, Testing & Inspection		
The 10% of total supply quantity shall be inspected and tested .The flowmeter shall be calibrated at manufacturers place as per international standard given above.Manufacturer having NABL lab accreditation ,the calibration testing shall be witness by Third party		

	approved by MJP The manufacturer not having NABL lab accreditation shall be tested at FCRI/CWPRS/IDEMI etc, for which third party inspection is not required.		
	17) Manufacturers Guarantee, Certificate & Training		
	The flow meters shall be supplied with manufacturer's test certificate as per international standards -given above, calibration certificates. 12 months guarantee for the trouble free performance and given Adequate training for handling flow meter and installation in field so that trainees can carryout the job independently		
	18) 60 Month's O & M towards flow meter & accessories:		
	The O & M shall be decided based on " planned preventive maintenance" Program (PPM) to be finalized with suppliers with following service included (but not limited) for 60 months beyond standard warranty terms as per H) However for project cases user must discuss with supplier for lumpsum O & M cost for the overall project. Planned Preventive Maintenance (PPM): - Regular visit to the flow meters (once in 2 month to check the healthiness of instruments) - Repairs/ replacement of components/spare parts as may be necessary during the flow meter inspection. - Free replacement of the spare parts and consumables as necessary - Emergency visit to site within 48 hours for attending any major trouble shooting and break downs. - Technical training/ trouble shooting training to the user by the supplier. - Providing complete technical details on instrument with necessary manuals		
	19) General Terms & Conditions		
	- General Specifications with accessories (except required for each type of meter specified) working conditions, mandatory accessories, calibration, inspection testing manufacturers test certificates, installation and commissioning, guarantee and training shall be common for all flow meters as mentioned above. The Additional/ optional accessories mentioned above to be considered as per project and site requirements. - The above prices are inclusive of import duty as applicable. - The above prices inclusive of counter vailing duty (CVD) as applicable with education cess of 2% on CVD. Also includes necessary charges for customs clearances clearing and forwarding charges in India. - The above prices are includes local inland transportation from manufacturer's godown /custom's godown upto sites anywhere in Telangana. - The above prices includes necessary packing & forwarding charges as applicable for each project - Octroi charges are not included in above rates and shall be as per actuals which will be included wherever applicable in estimates for meter up to site storage - The above prices are inclusive of Marine & inland insurance of flow meters up to site storage - Meter shall be procured with prior permission from concerned superintending Engineer/Chief Engineer. - Planning for installation for meter shall be done during execution of pipe work. Straight pipe length of 5 D or more on up stream side and 2 D or more on down stream side of meter is necessary (D is		

	diameter of flow meter) The meters shall be installed so as to have a laminar flow with pipe running full. j) The above rates are exclusive of GST.		
b)	Additional/Optional Accessories		
	1) Pressure transducer, which should be connected to the pressure lead of dual channel data loggers, compatible with the dual channel loggers of appropriate type with a pressure range of 5m to 150 m with an accuracy of not less than +/-1% to be supplied and installed at the upstream of the flow meters.	Each	21834
	2) Fixing flow meter transmitter to internal walls of buildings in a suitably designed panel cabinet with proper locking arrangement with glass window on front door for seeing the readings of flow transmitter and data logger without opening of the panel cabinet. It should house complete ancillaries and including the provision for connection of electrical power supply from nearby apparatus. The panel cabinet shall be prewired and with suitable gland entries.	Each	23144
	3) Laptop with core 2 duo processor, 2 GB RAM, 256 GB HDD, DVD writer, web cam, 14" LCD screen with carrying case, windows XP professional branded with necessary software & upload data should be provided	Each	26201
	4) The portable Device shall be compatible to the logger & flow meters for the purpose of retrieving data & resetting the data loggers, The portable device should be simple to operate & robust in design. The portable hand held units shall have sufficient memory to download & store data up to 6 flow meters. Hand held units shall be supplied with necessary communication leads for data logger to hand held & hand held to commercial PC, All the necessary software for download & upload to be provided.	Each	26201
	5) Remote monitoring system for data acquisition/data transfer & alert SMS /warning based on GSM technology with complete hardware like wireless communication device, cables,necessary software system (BOM with each GSM system is as given below) for each flow meter excluding data SIM card & its regular billing.	Each	43668
	a) Wireless communication device to communicate between central computer & flow transmitter installed at remote site with GSM based system b) DA Scheduler software for CSV file storage and data acquisition c) Cables for pressure, flow & totalized details from transmitter to field gate system {10 Mtrs with each GSM / GPRS system) d) OPC Software to be installed in central PC for SCADA interface. e) Commissioning charges for each locations f) Customized page with Java Applets XML-Data import software for online MIMIC g) R.F. Module / Cyble for operation of AMR shall be taken as Rs.7000 per meter h) RTU (Remote Terminal Unit) for each meter shall be taken as Rs. 12000/-		
	6) Sensor/Transmitter cable of following specification 3 x 0.38 mm ² PVC cable with common branded copper shielded 7mm dia and individually shielded cores-with empty pipe detection 9 EPD: 4 x 0.38 mm ² PVC cable with common branded copper shield 7 mm dia and individually shielded cores. Conductor resistance: < /=50 Ohm/Km. (Rate per meter).	Each	230
	7) Conduit pipe (PVC / HDPE plumbing) 32 mm diameter with suitable digging, laying and concealing the duct. (Rate Per Meter)	Each	18

c)	Other Civil Works:		
	1)Flow meter chamber work with suitable man hole for entering the chamber & removal of flow meter for maintenance in future		
	2) Construction of meter room with roof slab (100 mm) brick masonry with pile foundation of minimum 1.5 M x 1.5 M or as per instruction from Engineer-in -Charge with RCC beam/column minimum 0.15m x 0.15m size with steel door & cement jali ventilator and plinth height of minimum 0.5 M above GL and roof slab shall be 2.1 M from plinth inner and outer plaster with water proof cement painting		
S.No	Item Description	Unit	Rate in Rs.
2	Providing, installation, testing and commissioning of ULTRASONIC LEVEL TRANSMITTER for water application : Principle: Time of Flight / Sensor MOC PP/ Process connection 1 1/2 inch BSP or 2 inch BSP threaded type / Power Supply: 24 V DC / Out put: 4-20mA / Display: Integral Display for programming and Display reading/IP66. Ranging from 0 - 5 Mts, including LCD Display and configurable to any level and warranty for 5 years. The rates are excluding GST.	Each	62890
3	Providing, installation, testing and commissioning of PRESSURE TRANSMITTER: for water application: Range: 0-10 bar/power supply: 24 V DC / Output: 4-20 mA with HART / Diaphragm: SS316L / Process Connection: ½ “NPT (M) / Accuracy: 0.15% , Protection: IP67, including LCD Display and configurable to any level and warranty for 5 years. The rates are excluding GST.	Each	70751

34. FLOW CONTROL CUM NON-RETURN VALVE

S.No.	Description	Unit	Rate in Rs.
	Supply of tamper proof house hold non return cum flow control valve (with all three parts made by using sold steel bars of SS316) with CNC machine make and of 15mm dia designed for 5 LPM discharge @ 0.5 bar pressure loss, not exceeding the flow of 7 LPM at 1 bar pressure and working on float principle (as per CPHEEO manual) including cost of materials, manufacturing, loading, unloading, stacking, transit insurance, transportation but excluding GST.		
1	15mm dia	Each	265

35. MDPE PIPE

S.No.	Description	Unit	Pipe Series	Pressure Class	Rate in Rs.
	Manufacture, Supply & Delivery of MDPE pipe conforming to ISO 4427 Part-2 (or any equivalent Bureau of Indian Standards code) of PE-80 grade material along with all fittings, including cost of materials, manufacturing, loading, unloading, stacking, transit insurance, transportation to any where in Telangana but excluding GST.				
1	20mm OD	Mtr	SDR-11	PN-12.5	30.32
2	25mm OD	Mtr	SDR-11	PN-12.5	44.17
3	32mm OD	Mtr	SDR-11	PN-12.5	72.41

36.DWC HDPE PIPES CONFORMING TO IS 16098- PART-2

1	Manufacture, supply, & delivery of (DWC) structured wall polyethylene/polypropylene piping system class SN-8 with non smooth external annular corrugated and smooth internal surface (Double Wall) for non pressure sewage & Drainage application pipes of standard length 6 m, grade conforming to IS 16098 (part-II: 2013) including rubber gasket, transportation to anywhere in Telangana, loading, unloading charges but excluding all taxes etc complete.						
	Pipe OD	Pipe ID		Rate /mt			
	120	100		190			
	180	150		335			
	235	200		500			
	295	250		825			
2	Lowering , laying of Class SN 8 Double wall corrugated (DWC) pipping system into ready made trenches , laying true to line and level and perfect linking at joints, encasing the pipe around with soft gravel, testing and commissioning, and giving necessary hydraulic test to the required pressure as per ISS etc complete for finished item of work.						
	Pipe OD	Pipe ID		Rate /mt			
	120	100		150			
	180	150		210			
	235	200		230			
	295	250		285			

37. Double Chambered Restrained Joint DI K9 Pipes

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
	Manufacturing, Supply, Delivery, laying and jointing of Double chambered restrained joint DI K9 Pipes confirming to IS 8329 (restrained joints are designed and tested as per ISO 10804) (to be used to for minimum required length as per design along with double chambered restrained DI fittings to avoid concrete thrust block at bends) including rubber gaskets confirming to IS 5382 -1985/8329-2000 with latest amendments and locking bars & rubber spacers, conveying to work site, rolling and lowering into trenches, laying true to line, level and perfect linking at joints, testing and commissioning, including loading and unloading at both destinations, cutting of pipes wherever necessary, jointing with DI specials (excluding cost of specials) and rubber gaskets, cleaning the socket and spigot end with soap solution, applying soft soap to the socket and spigot ends before insertion of rubber gaskets, jacking and fixing in perfect conditions etc. The cost includes soap solution, soft soap, waste etc. and giving necessary hydraulic test to the required pressure as per ISS with all lead and lifts and cost of all jointing materials etc complete but excluding taxes		
	Nominal Dia in MM		
1	100 mm	Rmt	1984
2	150 mm	Rmt	2766
3	200 mm	Rmt	3489
4	250 mm	Rmt	4673
5	300 mm	Rmt	5924
6	350 mm	Rmt	7272
7	400 mm	Rmt	8868
8	450 mm	Rmt	10574
9	500 mm	Rmt	12359
10	600 mm	Rmt	16221
11	700 mm	Rmt	19165
12	750 mm	Rmt	21330
13	800 mm	Rmt	23574
14	900 mm	Rmt	28718
15	1000 mm	Rmt	34638
16	1100 mm	Rmt	40186
17	1200 mm	Rmt	46561

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.
Price Variation Formula due to Increase / Decrease in the cost of pig iron.

$P2 = P1 + (R2 - R1) / 1000 * M * 0.96$, Where

M = Weight of pipe in kg per metre as per I.S.8329-1994 & ISO 10804.

P2 = Revised rate of pipe in Rs. per Rmt.

P1 = Rate of pipe in Rs. per Rmt. as per above table.

R2 = Price of Pig Iron(Rs per MT excluding Taxes and freight) at the time of preparation of estimate.

R1 = Price of Pig Iron(Rs per MT excluding Taxes and freight) at time of preparation of SoR
=Rs.52,000/-

38. DOUBLE CHAMBERED RESTRAINED JOINT DI SPECIALS

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
	Manufacture, Supplying and fitting Ductile Iron Double Chambered Restrained Joint Specials confirming to IS 9523 : 2000 (restrained joints are designed and tested as per ISO 10804) of Class K-12 (Alternative and to avoid concrete thrust blocks along with minimum length of Restrained joint DI pipes at bends) including rubber gasket confirming to IS 5382 : 1985 and locking bars & rubber gaskets etc complete but excluding taxes		
	Ductile Iron Double Chambered Restrained Joint Specials		
1	Specials upto 500mm dia	Kg	359.77
2	Specials above 500 mm dia	Kg	432.23

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

39. ULTRASONIC AMR METERS USING LORAWAN TECHNOLOGY

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
	Supply, installation, and field testing of Ultrasonic AMR Meter with IP 68 protection (PN-10/ PN-16). The meters shall be manufactured as per ISO 4064:2005. The meter shall be manufactured with copper or Bronze or Cast Steel or Food Grade Engineering plastic. The meter must have passed life cycle/Endurance test from FCRI. The AMR meter shall have inbuilt communication module and battery. The data logger shall transmit data on daily bases to central server through LoRaWAN, in ISM band 865-867 MHz. The AMR meter shall uplink the data once in a day. The AMR meter should be capable of providing data like forward flow, reverse flow, tampering, daily flow rate distribution, leak detect, high flow detect and zero flow. The System shall send alerts for blocked meter, flow rate above limit, back flow detection. The AMR meter and battery shall carry warranty of at least 5 years from the date of delivery/date of installation whichever is earlier. The data shall be accessible on web server as required by the Client. The meter shall be able to operate in ambient temperature range -10 deg C to 55 deg C & Relative Humidity 5% to 95%. The web server, data communication and API cost is not included in the meter cost. The rates are including O&M for a period of 5 years. Rates are excluding GST, other taxes etc.		
1	15mm	Each	13800
2	20mm	Each	18310
3	25mm	Each	24454
4	40mm	Each	26430
5	50 mm	Each	61287
6	63/65mm	Each	68756
7	75/80 mm	Each	78833
8	100 mm	Each	109109
9	150 mm	Each	139523
10	200 mm	Each	168328
11	250mm	Each	172419
12	300mm	Each	246921
13	400mm	Each	342460
14	450mm	Each	377156
15	500mm	Each	414725
16	600mm	Each	480394

OPERATION & MAINTAINENCE (O&M)

40. ARRESTING OF LEAKAGES IN HDPE PIPELINE WITH BUTTFUSION WELDING

Sl. No.	Description	Unit	Material Component Rate in Rs.	Labour, Hire charges of Machinery & other components in Rs.	Total Rate in Rs.
1	2	3	4	5	6
	Arresting of leakage in HDPE pipe line with buttfusion welding of following diameter including necessary excavation, dewatering, removing of mud, cleaning of pipe and leakage portion of pipe from trench including replacing damaged pipe, providing jointing material, hiring of pumps, welding machine as required, refilling back the trench & all incidental charges complete for finished job of work.				
1	63 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	46	2395	2441
2	75 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	65	2410	2475
3	90 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	92	2427	2519
4	110 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	141	2455	2596
5	125 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	178	2620	2798
6	140 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	223	2660	2883
7	160 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	292	3038	3330
8	180 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	367	3120	3487
9	200 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	454	3304	3758
10	225 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	584	3479	4063
11	250 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	721	4118	4839
12	280 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	906	4666	5572
13	315 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	1142	4885	6027
14	335 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	1434	5827	7261

41. ARRESTING OF LEAKAGES IN HDPE PIPELINE WITH FITTINGS (COLLARS)

Sl. No.	Description	Unit	Material Component Rate in Rs.	Labour, Hire charges of Machinery & other components in Rs.	Total Rate in Rs.
1	2	3	4	5	6
	Arresting leakage in HDPE pipe line with Butt Fusion Welding and Fittings for the following diameters including necessary excavation, dewatering, removing of mud, cleaning of pipe and leakage portion of pipe from trench with including providing jointing material i.e. collars, flanges etc., hiring of Diesel generator, pumps, welding machine as required, refilling back the trench & all incidental charges complete for finished job of work				
1	63 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	555	2520	3075
2	75 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	669	2534	3203
3	90 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	761	2552	3313
4	110 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	946	2732	3678
5	125 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	1410	2832	4242
6	140 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	1566	2871	4437
7	160 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	2034	3196	5230
8	180 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	2774	3277	6051
9	200 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	3537	3397	6934
10	225 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	4167	3571	7738
11	250 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	5005	4982	9987
12	280 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	5575	5307	10882
13	315 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	6445	5535	11980
14	335 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	12036	6500	18536

42. ARRESTING OF LEAKAGES IN DI PIPELINE

Sl. No.	Description	Unit	Material Component Rate in Rs.	Labour, Hire charges of Machinery & other components in Rs.	Total Rate in Rs.
1	2	3	4	5	6
	Arresting Joint leakages in DI pipeline at socket and spigot ends (S/S) by replacing the rubber gaskets for following diameters including necessary excavation, dewatering, removing of mud, lifting and removal of pipe, cleaning of pipe at leakage portion, jointing with rubber gasket & placing in position including hire charges of of hydra or crane, pumps, DG set and necessary equipments, refilling back the trench & all incidental charges complete for finished job of work				
1	100 mm Dia	Job	444	5502	5946
2	150 mm Dia	Job	652	6132	6784
3	200 mm Dia	Job	792	6637	7429
4	250 mm Dia	Job	880	7212	8092
5	300 mm Dia	Job	1344	8301	9645
6	350 mm Dia	Job	1700	8986	10686
7	400 mm Dia	Job	1848	9664	11512
8	450 mm Dia	Job	1988	10448	12436
9	500 mm Dia	Job	2760	12820	15580
10	600 mm Dia	Job	3272	14472	17744
11	700 mm Dia	Job	4348	16433	20781
12	750 mm Dia	Job	4832	17381	22213
13	800 mm Dia	Job	5788	20028	25816
14	900 mm Dia	Job	6988	22512	29500
15	1000 mm Dia	Job	7644	24825	32469

43. ARRESTING OF LEAKAGES IN MS PIPELINE

Sl. No.	Description	Unit	Material Component Rate in Rs.	Labour, Hire charges of Machinery & other components in Rs.	Total Rate in Rs.
1	2	3	4	5	6
	Arresting leakage in MS pipeline of following diameter including necessary excavation, dewatering, removing of mud, cleaning of pipe and leakage portion, grinding, cutting the pipeline or joint if necessary including welding the joint by using ISI marked welding electrodes inclusive of hydra or crane, DG SET, Welding machine with gas cutter with LPG Cylinder, oxygen cylinder, grinding machine etc. with fuel, operator and labour as required, refilling back the trench & all incidental charges complete for finished job of work.				
1	100 mm Dia	Job	26	1863	1889
2	150 mm Dia	Job	26	1928	1954
3	200 mm Dia	Job	26	1994	2020
4	250 mm Dia	Job	48	2336	2384
5	300 mm Dia	Job	48	2402	2450
6	350 mm Dia	Job	73	2892	2965
7	400 mm Dia	Job	73	2961	3034
8	450 mm Dia	Job	73	3030	3103
9	500 mm Dia	Job	141	3501	3642
10	600 mm Dia	Job	176	3642	3818
11	700 mm Dia	Job	176	3787	3963
12	800 mm Dia	Job	176	4095	4271
13	900 mm Dia	Job	1470	7006	8476
14	1000 mm Dia	Job	1470	7174	8644
15	1100 mm Dia	Job	1470	7605	9075
16	1200 mm Dia	Job	1470	7998	9468
17	1300 mm Dia	Job	1998	9304	11302
18	1400 mm Dia	Job	1998	9769	11767
19	1500 mm Dia	Job	1998	9978	11976
20	1600 mm Dia	Job	2471	11990	14461
21	1700 mm Dia	Job	2471	12206	14677
22	1800 mm Dia	Job	2471	12750	15221
23	1900 mm Dia	Job	3324	15308	18632
24	2000 mm Dia	Job	3324	15752	19076
25	2100 mm Dia	Job	3324	16217	19541
26	2200 mm Dia	Job	3324	17226	20550
27	2300 mm Dia	Job	3324	17601	20925
28	2400 mm Dia	Job	3324	18274	21598

44. ARRESTING OF LEAKAGES IN BWSC PIPELINE

Sl. No.	Description	Unit	Material Component Rate in Rs.	Labour, Hire charges of Machinery & other components in Rs.	Total Rate in Rs.
1	2	3	4	5	6
	Arresting leakage in damaged/ Burst BWSC pipeline by replacement with MS Barrel pipe 6m length with bituminous paint outside & food grade epoxy paint inside for the following diameters including necessary excavation, dewatering, removing of mud, cleaning of pipe and leakage portion, grinding, cutting the pipeline or joint if necessary including replacing damaged pipe with MS barrel pipe, Welding the joint by using ISI marked welding electrodes inclusive of hiring of excavator, pumps, hydra or crane, DG SET, Welding machine with gas cutter with LPG Cylinder, oxygen cylinder, grinding machine etc., refilling back the trench & all incidental charges complete for finished job of work.				
1	250 mm Dia	Job	34304	5126	39430
2	300 mm Dia	Job	40926	5419	46345
3	350 mm Dia	Job	47709	6045	53754
4	400 mm Dia	Job	54498	6195	60693
5	450 mm Dia	Job	60760	6672	67432
6	500 mm Dia	Job	84245	7926	92171
7	600 mm Dia	Job	100147	8974	109121
8	700 mm Dia	Job	116758	9986	126744
9	800 mm Dia	Job	133687	10786	144473
10	900 mm Dia	Job	179199	12070	191269
11	1000 mm Dia	Job	198144	12882	211026
12	1100 mm Dia	Job	221065	14658	235723
13	1200 mm Dia	Job	243288	15440	258728

Annexure

1. Latest G.Os
2. Seigniorage Charges

GOVERNMENT OF TELANGANA
ABSTRACT

Mines & Minerals - New Sand Mining Policy - 2014 for the State of Telangana - Usage of Manufactured Sand - Certain Instructions - Issued.

INDUSTRIES AND COMMERCE (MINES.I) DEPARTMENT

G.O.Ms.No. 37

Dated: 29-05-2018.

Read the following:-

1. G.O.Ms.No.38, Ind. & Com (M.I) Department, dated.12.12.2014
2. G.O.Ms.No.03, Ind. & Com (M.I) Department, dated.08.01.2015

ORDER:

The Government of Telangana is committed to encourage use of Manufactured Sand as an alternative to river sand in order to conserve the environment on the one hand and to overcome the problem of growing shortage of natural sand on the other hand. In the references read above, the Government of Telangana have issued orders, for regulation of sand mining wherein it was mentioned that usage of Manufactured Sand shall be encouraged in place of river sand to meet the requirement of bulk consumers. Manufactured sand is defined as purpose made crushed fine aggregate produced from a suitable source material.

2. The utility and demand for manufactured sand has increased considerably over a period of time due to certification by reputed Scientific Organizations such as National Council for Cement and Building Material (NCCBM), National Academy of Construction (NAC), BICARD, a Scientific Research and Certification Lab at Department of Civil Engineering, JNTU, Hyderabad. The Technical viability of Manufactured Sand has been established without doubt.

3. Government, hereby direct all the Engineering Works Departments to use Manufactured Sand (Rock Sand) and Natural River sand in the ratio of 50:50 in all the mixes of cement concrete and in the items of works where sand is used earlier, to reduce the burden on Natural Resources and to make the sustainable ecosystem.

4. The Engineer in Chiefs, Roads and Buildings, Irrigation & Command Area Development and Panchayat Raj & Rural Development shall take necessary action in the matter accordingly.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF TELANGANA)

SHAILENDRA KUMAR JOSHI
CHIEF SECRETARY TO GOVERNMENT

To

The Engineer in Chief, Roads and Buildings.

The Engineer in Chief, Irrigation & Command Area Development.

The Engineer in Chief, Panchayat Raj.

The Engineer in Chief, RWS&S.

Copy to:

The I&CAD Department, Telangana Secretariat.

The TR&B Department, Telangana Secretariat.

The PR&RD Department, Telangana Secretariat, Hyderabad.

The Director of Mines & Geology, Telangana State, Hyderabad.

The Vice Chairman & Managing Director, TSMDC Ltd, Hyderabad.

The Commissioner of Panchayat Raj, Hyderabad

All the District Collectors in the State of Telangana

P.S to Principle Secretary to the Hon'ble Chief Minister.

P.S to Hon'ble Minister for Mine and Geology.

P.S to Hon'ble Minister for Panchayat Raj & Rural Development.

P.S to Hon'ble Minister for Irrigation

P.S to Hon'ble Minister for Roads & Buildings

P.S to Chief Secretary to Government.

P.S to Prl. Secretary Government & CIP (FAC), Ind & Com Dept.

Sf/Sc (C.No.2823/M.I(1)/2018)

//FORWARDED : : BY ORDER//

SECTION OFFICER

**GOVERNMENT OF TELANGANA
ABSTRACT**

Mines and Minerals - Rules - The Telangana Minor Mineral concession Rules, 1966 - Revision of Seigniorage Fee - Amendment - Notification - Orders - Issued.

INDUSTRIES AND COMMERCE (MINES.I) DEPARTMENT

G.O.Ms.No.18,

Dated:31.03.2022
Read the following

- 1) G.O.Ms.No.67, Industries & Commerce (M.I) Dept., dt:26.09.2015
- 2) G.O.Ms.No.16, Industries & Commerce (M.I) Dept., dt:16.03.2016
- 3) From the Director of Mines and Geology, Hyderabad Letter No.1247095/P/2021, dated:22.09.2021.

ORDER:

The Director of Mines and Geology, Telangana, by above reference 3rd read above, has stated that as per Section 15 (3) of Mines and Mineral (Development and Regulation) Act, 1957 (MMDR, 1957), Seigniorage Fee has to be revised every three years. The Director also stated that no revision of Seigniorage Fee has been done in past six years and the last revision was done on 26.09.2015 for Schedule-I Minor Minerals and 16.03.2016 for Schedule III Minor Minerals.

2. Hence, the Director has proposed revision of Seigniorage Fee and requested the Government to issue necessary amendments to Schedule I and Schedule III under Rule 10 of Telangana State Minor Mineral Concession Rules, 1966.

3. After careful examination of the proposal of the Director of Mines and Geology, Telangana, it is hereby decided to accept the revision of Seigniorage Fee.

4. Accordingly, the following notification shall be published in the Extra-Ordinary Issue of the Telangana State Gazette.

NOTIFICATION

In exercise of the powers conferred by Sub-Section (1) of Section 15 of the Mines and Minerals (Development and Regulation) Act, 1957 (Central Act No.67 of 1957), the Governor of Telangana hereby makes the following amendments to the Telangana Minor Mineral Concession Rules, 1966.

AMENDMENTS

In the said rules, for Schedule I and Schedule III under Rule 10, the following shall be substituted.

**SCHEDULE-I
RATES OF SEIGNIORAGE FEE**

S. No	Name of Minor Mineral	Rate of Seigniorage Fee per Metric Tonne (MT) (In Rupees)
1	Building Stone, Rough Stone/ Boulders, Road Metal, Ballast and Manufactured Sand (M-Sand)	65
2	Dimensional Stone used for Kerbs& Cubes	130
3	Lime Kankar/ Limestone	The rate of royalty as applicable to Limestone (other than LD Grade) in respect of major Minerals as per the 2 nd Schedule of the Mines & Minerals (D&R) Act, 1957.
4	Marble	130
5	Mosaic chips	58
6	Morrum/Gravel & Ordinary Earth	20
7	Ordinary Sand	27

8	Shingle	22
9	Chalcedony Pebbles	65
10	Fullers Earth/ Bentonite	195
11	Shale/Slate	195
12	Rehmatti	32
13	Limestone slabs	130
14	Brick Earth used in the manufacture of Bricks including Mangalore Tiles.	7800 per kiln per annum
15	Granite useful for cutting and polishing	
	i) Black Granite	
	a) Gangsaw (above 270 x above 150 CM)	1361/3900 MT/M3
	b)below Gangsaw	1043/2990 MT/M3
	ii) Colour Granite	
	a) Gangsaw (above 270 x above 150 CM)	1128/2990 MT/M3
	b)below Gangsaw	980/2600 MT/M3

SCHEDULE-III
RATES OF SEIGNIORAGE FEE

S. No	Name of the Minor Mineral	Rate of Seigniorage Fee per Metric Tonne (MT) (In Rupees)
1	Agate	156
2	Ball Clay	78
3	Barytes	780
4	Calcareous Sand	97
5	Calcite	91
6	Chalk	104
7	China Clay	78
8	Clay (Others)	52
9	Corundum	78
10	Diaspore	351
11	Dolomite	130
12	Dunite or Pyroxenite	52
13	Felsite	143
14	Feldspar	97
15	Fireclay (including plastic, pipe, lithomargic and natural pozzolanic clay)	65
16	Fuchsite Quartzite	91
17	Gypsum	91
18	Jasper	156
19	Kaolin	78
20	Laterite	130

21	Limekankar	123
22	Mica	2600
23	Ochre	45
24	Pyrophyllite	234
25	Quartz	78
26	Quartzite	78
27	Sand (Others)	78
28	Shale	169
29	Silica Sand	78
30	Slate	169
31	Steatite or Talc or Soapstone	390

5. These orders will come into effect from 01st April, 2022.
6. The Director of Mines & Geology, Telangana, shall take necessary action accordingly.
7. This order is issues with the concurrence of Finance Department vide their U.O.No.2012-A/89/EBS.VII/I&C/2021, dated:22-09-2021

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF TELANGANA)

SOMESH KUMAR
CHIEF SECRETARY TO GOVERNMENT &
PRINCIPAL SECRETARY TO GOVERNMENT (MINES & GEOLOGY)(FAC)

To
The Commissioner of Printing, Stationary & Stores Purchase (Ptg. Wing) Hyderabad.
(He is requested to publish the above Notification in the Extra -Ordinary issue of Telangana Gazette, and arrange to send 500 copies of the same to Government in Inds. & Comm. (M.I) Dept.,).

The Director of Translation, Telangana, Hyderabad.
(He is requested to furnish the Telugu version of the Notification direct to the Commissioner, Printing, Stationary & Stores Purchase (Ptg. Wing), Hyderabad).

The Director of Mines and Geology, Telangana State, Hyderabad.
The Vice Chairman & Managing Director, Telangana State Mineral Development Corporation Ltd., Hyderabad.

All the District Collectors/ Additional Collectors in the State of Telangana.
The Municipal Administration and Urban Development Department.
The Irrigation & CAD Department.
The Transport, Roads & Buildings Department.
The Panchayat Raj & Rural Development Department.
The Revenue Department.
The Director General of Police, Hyderabad.
The Commissioner of Rural Development, Hyderabad.
The Commissioner of Transport, Hyderabad.
The Commissioner of Panchayat Raj, Hyderabad
The Director, Ground Water Department.
The Member-Secretary, Telangana State Pollution Control Board, Hyderabad.
The Engineer-in-Chief, Irrigation Department.

Copy to :
The Secretary to Government, Ministry of Mines, Govt of India.
The Law Department.
The Finance Department.
P.S. to Principal Secretary to Hon'ble Chief Minister.

P.S to Hon'ble Minister MA&UD

P.S. to Hon'ble Minister for Panchayat Raj & Rural Development.

P.S. to Hon'ble Minister for Irrigation.

P.S. to Chief Secretary and Principal Secretary to Government, Industries & Commerce (Mines) Department.

The Joint Directors/Deputy Directors/Assistant Directors of Mines and Geology through the Director of Mines & Geology, Hyderabad.

The General Administration (Cabinet) Department.

Sc/Sf

//FORWARDED:: BY ORDER//

SECTION OFFICER

GOVERNMENT OF TELANGANA
ABSTRACT

Mines and Minerals – Revision of Rates of Seigniorage Fee and Dead Rent - Orders
– Issued.

INDUSTRIES AND COMMERCE (MINES.I) DEPARTMENT

G.O.MS.No. 67

Dated: 26/09/2015

Read the following

- 1) G.O.Ms.No.198, Industries & Commerce (M.I) Dept., dt:13.08.2009
- 2) Government Memo No.418/M.I(1)/2015, dated:08.07.2015.
- 3) From the Director of Mines and Geology, Hyderabad Letter No.3305/MR/2014, dated:08.07.2015.

ORDER:

The following notification will be published in the Extra-Ordinary Issue of the Telangana Gazettee dated:the 26th September, 2015.

NOTIFICATION

In exercise of the powers conferred by Section Sub-Section (1) of 15 of the Mines & Minerals (Development & Regulation) At, 1957 (Central Act No.67 of 1957), the Government of Telangana hereby issue the following amendments to the A.P. Minor Mineral Concession Rules, 1966 issued in G.O.Ms.No.1172, Industries & Commerce (Mines-I) Department, dated:04-09-1967 and as amended subsequently from time to time and as adapted vide G.O.Ms.No.55, Industries & Commerce (Mines.I) Department, dated:26.08.2015 as A.P. Minor Mineral Concession Rules, 1966 (Telangana Adaptation) order, 2015.

AMENDMENTS

In the said rules, under rule 10 for Schedules I and II the following shall be substituted, namely:

SCHEDULE-I
RATES OF SEIGNIORAGE FEE

Sl. No.	Name of the Minor Mineral	Unit	Rate of Seigniorage fee (In Rupees)
1	Building Stone, Rough Stone/ Boulders, Road Metal and Ballast	M3/MT	75/50
2	Dimensional Stone used for Kerbs & Cubes	MT	100/MT
3	Lime Kankar/ Limestone	MT	The rate of royalty as applicable to Limestone (other than LD Grade) in respect of major Minerals as per the 2 nd Schedule of the Mines & Minerals (D&R) Act, 1957.
4	Marble	M3/MT	250/100
5	Mosaic chips	MT	45
6	Morrum/Gravel & Ordinary Earth	M3/MT	30/20
7	Ordinary Sand	M3/MT	40/27
8	Shingle	M3/MT	25/17
9	Chalcedony Pebbles	M3/MT	75/50
10	Fullers Earth/ Bentonite	MT	150
11	Shale/Slate	MT	150
12	Rehmatti	MT	25
13	Limestone slabs	M2/MT	8/100

14	Brick Earth used in the manufacture of Bricks including Mangalore Tiles.	-	Rs.6000/- per kiln per annum	
15	Granite useful for cutting and polishing	Gangsaw above 270 x above 150	Below 270 X below 150	Equal and below 70
a	Black Granite	3000	2300	1200
b	Colour Granite	2300	2000	1000

The rates shown at Sl.No.15 shall come into force w.e.f., two years from the date of this G.O. until then the rates ordered in G.O.Ms.No.198, Industries & Commerce (M.I) Dept., dt:13.08.2009 shall continue to be inforce.

SCHEDULE-II
Rates of Dead Rent

Sl. No.	Name of the mineral	Rate of Dead Rent per hectare per Annuaam (in Rs.)
1	Black Granite	1,00,000
2	Colour Granite	80,000
3	Limestone other than classified as Major Minerals used for Lime burning or building construction purposes, Marble, Boulders, Building Stone including Stone used for Road Metal, Fullers Earth, Ballast Concrete and other Constructions purposes, Slate and Pyllites.	50,000
4	Gravel Morrum, Shingle, Limestone Slabs, used for Flooring purposes, Chalcedeny Pebbles used in the building purposes, Limeshell for burning used for building purposes and Rehmatti.	40,000

2. The rate of royalty revised by Government of India with effect from 01.09.2014 in respect of (31) Major Minerals now declared as Minor Minerals and transferred to the State Government in the extra-ordinary issue of the Gazette Government of India Notification No.423(E) dated:10.02.2015 shall be continued, until further orders.

3. This order issues with the concurrence of Finance Department vide their U.O.No.11350/292/EBS-VII/I&C/2015, dated:18-09-2015.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF TELANGANA)

ARVIND KUMAR
SECRETARY TO GOVERNMENT & CIP

To,
The Commissioner of Printing, Stationary & Stores Purchase (Ptg. Wing)
Hyderabad. (He is requested to publish the above Notification in the Extra-Ordinary issue of Telangana Gazette, and arrange to send 1000 copies of the same to Government in Industries & Commerce (M.I) Department).

The Director of Mines and Geology, Telangana State, Hyderabad
The Vice Chairman & Managing Director, Telangana State Mineral Development Corporation Ltd., Hyderabad.
All the Joint Director/Deputy Director/Assistant Directors of Mines and Geology through the Director of Mines and Geology, Hyderabad

Copy to:

The Secretary to Government, Ministry of Mines, GoI
The Law (A) Department.
The Finance Department.
The Industries and Commerce (Mines.II) Department.
The P.S. to Hon'ble Minister for Mines and Geology.
The P.S. to Secretary to Government &CIP, Ind. & Com. Dept.,
SF/Sc.(C.No.418/M.I(1)/2015)

//Forwarded::By order//

SECTION OFFICER

**GOVERNMENT OF TELANGANA
ABSTRACT**

MINES & Quarries – Regulation of (31) Major Minerals declared through notification by the Central Government as Minor Minerals – Rates of Seigniorage Fee and Dead Rent – Notification - Orders – Issued.

INDUSTRIES AND COMMERCE (MINES-I) DEPARTMENT

G.O.MS.No. 16

Dated: 16/03/2016
Read the following:

- 1) Gazette Notification issued vide GSR No.423(E) dt:10-02-2015 by the Ministry of Mines, Government of India.
- 2) G.O.Ms.No.55, Industries &Commerce (M.I) Department, dated:26-08-2015.
- 3) From the Director of Mines & Geology, Hyderabad Letter No.4249/P/2015, dated:08-12-2015.
- 4) G.O.Ms.No.15 Industries &Commerce (M.I) Department, dated:16.03.2016.

ORDER:

In the reference 1st read above, the Ministry of Mines, Government of India in exercise of the powers conferred by clause (e) of Section 3 of the Mines and Minerals (Development and Regulation) Act, 1957 declared the following (31) Major Minerals as Minor Minerals in addition to the Minor Minerals already vested with the State Government:

1. Agate;	12. Dunite or Pyroxenite;	22. Mica;
2. Ball Clay;	13. Felsite.	23. Ochre;
3. Barytes;	14. Feldspar;	24. Pyrophyllite;
4. Calcareous Sand;	15. Fireclay;	25. Quartz;
5. Calcite;	16. Fuchsite Quartzite;	26. Quartzite;
6. Chalk;	17. Gypsum;	27. Sand (Others);
7. China Clay;	18. Jasper;	28. Shale;
8. Clay (Others);	19. Kaolin;	29. Silica Sand;
9. Corundum;	20. Laterite;	30. Slate; and
10. Diaspore;	21. Limekankar;	31. Steatite or Talc or Soapstone.
11. Dolomite;		

2. In the reference 2nd read above, the Andhra Pradesh Minor Mineral Concession Rules, 1966 were adopted by the Government by an order called "Andhra Pradesh Minor Mineral Concession Rules, 1966 (Telangana Adoption) Order, 2015" by notifying in an extraordinary issue of Telangana Gazette No.35, dated:26.08.2015, in view of Andhra Pradesh Reorganization Act, 2014.

3. In the reference 3rd read above, the Director of Mines and Geology, Hyderabad has proposed the revision of Seigniorage Fee and Dead Rent consequent on declaring the (31) Major Minerals as Minor Minerals to regulate in the State.

4. In the reference 4th read above, the Government have issued orders for regulating the said (31) Minerals on par with Granite useful for cutting & polishing and Marble as per Rule 12(5) of the existing Telangana Minor Mineral Concession Rules, 1966, on case to case basis, until the "Telangana State Mineral Policy" and "Telangana Minor Mineral Concession, Conservation and Development Rules-2016" are announced.

5. The Government, after careful examination of the matter, have decided to order the revision of Seigniorage Fee and Dead Rent for the said (31) Minerals to regulate in the state.

[P.T.O]

6. Accordingly, the following Notification shall be published in the Extra-ordinary issue of Telangana Gazette dated the 18th March, 2016.

NOTIFICATION

In exercise of the powers conferred by Section 15(1) of Mines and Minerals (Development and Regulation) Act, 1957 (Central Act 67 of 1957), the Governor of Telangana hereby issue the following amendments to the Telangana State Minor Mineral Concession Rules, 1966.

Amendments

In the said rules, under Rule 10 after Schedule-I & II the following shall be added, namely:-

SCHEDULE-III
RATES OF SEIGNIORAGE FEE

Sl. No.	Name of the Minor Mineral	Unit	Rate of Seigniorage Fee (in Rupees)
1.	Agate	MT	120/-
2.	Ball Clay	MT	60/-
3.	Barytes	MT	600/-
4.	Calcareous Sand	MT	75/-
5.	Calcite	MT	70/-
6.	Chalk	MT	80/-
7.	China Clay	MT	60/-
8.	Clay (others)	MT	40/-
9.	Corundum	MT	60/-
10.	Diaspore	MT	270/-
11.	Dolomite	MT	100/-
12.	Dunite or Pyroxenite	MT	40/-
13.	Felsite	MT	110/-
14.	Feldspar	MT	75/-
15.	Fireclay (including plastic, pipe, lithomargic and natural pozzolanic clay)	MT	50/-
16.	Fuchsite Quartzite	MT	70/-
17.	Gypsum	MT	70/-
18.	Jasper	MT	120/-
19.	Kaolin	MT	60/-
20.	Laterite	MT	100/-
21.	Limekankar	MT	95/-
22.	Mica	MT	2000/-
23.	Ochre	MT	35/-
24.	Pyrophyllite	MT	180/-
25.	Quartz	MT	60/-
26.	Quartzite	MT	60/-
27.	Sand (others)	MT	60/-
28.	Shale	MT	130/-
29.	Silica Sand	MT	60/-
30.	Slate	MT	130/-
31.	Steatite or Talc or Soapstone	MT	300/-

**Schedule-IV
Rates of Dead Rent**

Name of the Mineral	Rate of Dead Rent per Hectare per Annum
Agate; Ball Clay; Barytes; Calcareous Sand; Calcite; Chalk; China Clay; Clay (Others); Corundum; Diaspore; Dolomite; Dunite or Pyroxenite; Felsite; Feldspar; Fireclay; Fuchsite Quartzite; Gypsum; Jasper; Kaolin; Laterite; Limekankar; Mica; Ochre; Pyrophyllite; Quartz; Quartzite; Sand (Others); Shale; Silica Sand; Slate; and Steatite or Talc or Soapstone.	Rs.20,000/- (Twenty thousand only) This will be enhanced by 50% after 3 years and another 50% after 5 years or based the situation at that point of time as decided by Government.

7. The Director of Mines and Geology, Hyderabad shall take necessary further action in the matter, accordingly.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF TELANGANA)

ARVIND KUMAR
PRINCIPAL SECRETARY TO GOVERNMENT & CIP

To

The Commissioner of Printing, Stationary & Stores Purchase (Ptg. Wing), Hyderabad.
(He is requested to publish the above Notification in the Extra-Ordinary issue of Telangana Gazette, and arrange to send 500 copies of the same to Government in Industries & Commerce (M.I) Dept.,).

The Director of Translation, Telangana, Hyderabad.

(He is requested to furnish the Telugu version of the Notification direct to the Commissioner, Printing, Stationary & Stores Purchase (Ptg. Wing), Hyderabad)

The Director of Mines and Geology, Telangana State, Hyderabad.

The Vice Chairman & Managing Director, Telangana State Mineral Development Corporation Ltd., Hyderabad.

All the District Collectors/Joint Collectors in the State of Telangana.

The Irrigation & CAD Department.

The Transport, Roads & Buildings Department

The Panchayat Raj & Rural Development Department

The Revenue Department.

The Director General of Police, Hyderabad

The Commissioner of Rural Development, Hyderabad.

The Commissioner of Transport, Hyderabad.

The Commissioner of Panchayat Raj, Hyderabad

All the Departments of Telangana Secretariat.

The Director, Ground Water Department.

The Member-Secretary, Telangana State Pollution Control Board, Hyderabad.

The Engineer-in-Chief, Irrigation Department.

Copy to :

P.S. to Principle Secretary to the Hon'ble Chief Minister.

P.S to Hon'ble Minister for Mines and Geology.

P.S. to Hon'ble Minister for Panchayat Raj & Information Technology.

P.S. to Hon'ble Minister for Irrigation.

P.S. to Chief Secretary to Government.

P.S. to Secretary to Government & CIP, Ind. & Com Dept.

P.S. to Secretary to Government, Ind & Com Dept.,

The Joint Directors/Deputy Directors/Assistant Directors of Mines and Geology Dept., through the Director of Mines & Geology, Hyderabad.

The Law (A) Department.

The General Administration (Cabinet) Department.

The Industries and Commerce (Mines.II) Department.

Sf/Sc.(C.No.8613/M.I(1)/2015)

//FORWARDED : : BY ORDER//

SECTION OFFICER

GOVERNMENT OF TELANGANA
FINANCE (WP) DEPARTMENT
&&&

Circular Memo No.1823205-A/231/A1/WP/2022, dated: 29.12.2022

Sub: Works - Revision of Goods and Services Tax (GST) Rates – Reg.

- Ref: 1. G.O.Ms.No.67, I&CAD (Reforms) Department, Dt: 04.07.2018
2. Government of India Notification No.15/2021, Central Tax (Rate), dated: 18.11.2021.
3. Government of India Notification No.22/2021, Central Tax (Rate), dated: 31.12.2021.
4. Government of India Notification No.3/2022, Central Tax (Rate), dated:13-7-2022.
5. From the Engineer-in-Chief (General), Hyderabad, Letter No.ENC(G)/SE(P&M)/DCE/DEE8/AEE22/KPH/GST/F-67, dated:09.11.2022.

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Government in the reference 1st cited, have issued guidelines for implementation of Goods and Services Tax (GST) for ongoing and future works contracts with effect from 01.07.2017 for regulating work bills for all Engineering Departments.

2. The Government of India in the references 2nd to 4th cited have issued following notifications making certain amendments inter-alia revising the Goods and Services Tax (GST) rates on works contracts.

- i. Government of India vide Notification No.15/2021, dated: 18.11.2021 and notification No.22/2021 dated: 31.12.2021 have amended the master Notification No.11/2017 dated: 28.06.2017 to be effective from 01.01.2022 and the effect of the amendment is that the Government Authority and Government Entity are excluded from the list of specified recipients of the supply of services at concessional rates i.e 5%, 12% and nil rate.
- ii. Government of India vide Notification No.03/2022 dated:13.07.2022 have amended the master Notification No.11/2017 dated:28.06.2017 as per which with effect from 18.07.2022, GST is applicable @18% on all works contracts and @12% for the works contracts provided to Government and Local Authorities, having predominantly earth work.

3. In the reference 5th read above, the Engineer-in-Chief(General),Hyderabad has submitted the proposal for amending G.O.Ms.No.67, Irrigation & CAD (Reforms) Department, dated: 04.07.2018, in accordance with GoI Notification 03/2022 dated:13.07.2022 and GoI Notification No.15/2021 dated 18.11.2021 read with Notification No.22/2021 dated:31.12.2021.

4. Government after careful examination of the matter, direct that GST shall be implemented in accordance with Department of Revenue, Ministry of Finance, Govt. of India Notification No.03/2022-Central Tax (Rate), Dated: 13.07.2022 and Notification No.15/2021 dated 18.11.2021 read with Notification No.22/2021 dated: 31.12.2021 as tabulated below.

S.No.	Description of Service	Existing GST Rate (CGST+SGST)	Revised GST Rate (CGST+SGST)	With effect from
1	2	3	4	5
1	Construction services to Government Entity or Government Authority as per the Notification No.15/2021, dated: 18.11.2021 read with Notification No.22/2021, dated: 31.12.2021.	12%	18%	01.01.2022
2	Construction services to Government Entity or Government Authority involving predominantly earth work (more than 75 % value of work) as per the Notification No.15/2021, dt.18.11.2021 read with Notification No.22/2021, dated: 31.12.2021.	5%	18%	01.01.2022
3	Construction services to Central Government or State Government or Union Territory or Local authority as per the Notification No.03/2022 dated: 13.07.2022.	12%	18%	18.07.2022

4	Construction services to Central Government or State Government or Union Territory or Local Authority involving predominantly earth work (more than 75% of value of work) per the Notification No.03/2022 dated: 13.07.2022.	5%	12%	18.07.2022

5. a) For Works Estimates sanctioned on or after cut off dated mentioned in column(5) of the above table, the provision for GST payable shall be made in PART-B of Estimate at the rate of 18% or 12% as the case may be.
- b) For ongoing works, GST shall be paid as per the provisions of the GST Act at the above rates duly providing for the same in variation/ revised estimates.
- c) The concerned agencies of works contracts are responsible to discharge their liability as per GST Act and provisions and to file their returns accordingly.

6. The Irrigation & CAD, Panchayat Raj & Rural Development, Transport, Roads & Buildings and Municipal Administration & Urban Development Departments are requested to take necessary further action in the matter, accordingly.

7. The Director of Works and Accounts, Telangana, Hyderabad shall issue necessary instructions to all the concerned for adhering the above instructions.

K.RAMAKRISHNA RAO,
SPECIAL CHIEF SECRETARY TO GOVERNMENT

To
The Irrigation & CAD Department, Telangana Secretariat, Hyderabad.
The Panchayat Raj & Rural Development Department,
Telangana Secretariat, Hyderabad.
The Transport, Roads & Buildings Department,
Telangana Secretariat, Hyderabad.
The Municipal Administration & Urban Development Department,
Telangana Secretariat, Hyderabad.
The Director of Works and Accounts, Telangana, Hyderabad.

Copy to:

All Engineer-In-Chiefs and the Chief Engineers, I & CAD Department.
The Engineer-in-Chief (TR&RB) Department, Hyderabad.
The Engineer-in-Chief, PR&RD Department, Hyderabad.
The Engineer-in-Chief, PH Department, Hyderabad.
The Principal Accountant General, Telangana, Hyderabad.
The Revenue (C.T) Department, Telangana Secretariat, Hyderabad.
The P.S. Prl. Secretary to Hon'ble Chief Minister, Telangana, Hyderabad.

//FORWARDED :: BY ORDER//



SECTION OFFICER