



#### TAMILNADU WATER SUPPLY AND DRAINAGE BOARD

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### Foreword

Dr.C.N. Mahesvaran, I.A.S, Managing Director

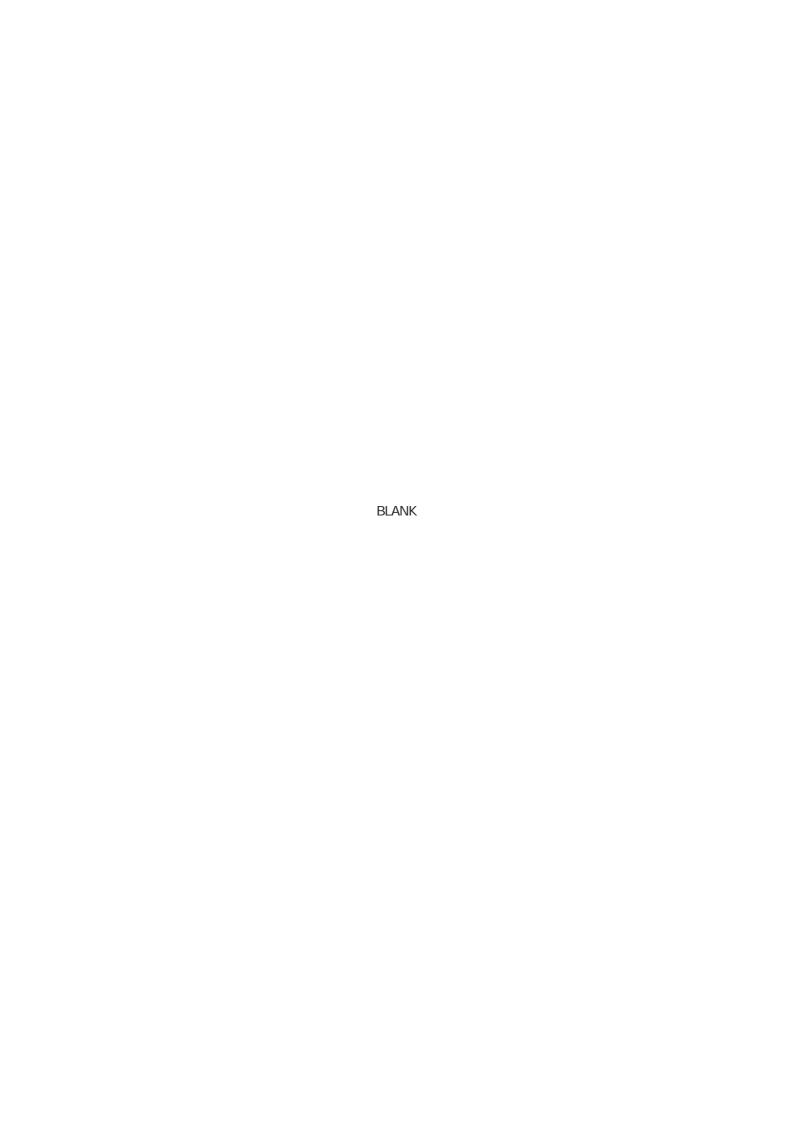
I fully recognize that the updating of Schedule of Rate (SoR) on an annual basis is a dynamic process propelled by the PWD SoR, feed backs, field experiences and market rates of materials. The drills of

processes underwent by a dedicated team to collate rates for the SoR in an acceptable format, require a lot of team work behind, prior to competent compilation by Contract Management (CoM) Wing. The arduous process of preparation of TWAD Board SoR for 2018-'19 including the newer items stem from the Rates quoted by Manufacturers, proposals emanated from the respective Chief Engineers based on field experience, and the supplemental rates approved by the Superintending Engineers.

I am happy that there are new vistas in the items involving Electro Mechanical and Instrumentation (EMI). I am charmed to know that such specifications and rates of EMI are formulated after profound deliberations among a Committee of proficient Mechanical Engineers, duly vetted by veteran retired Engineers. It is gratifying to note that rates and processes pursued in preparing the SoR for 2018-'19 has been approved by the SLTC of TWAD Board.

As such, I take immense pleasure in dedicating the "TWAD Board Schedule of Rates for 2018-'19", for adoption in the preparation of Estimates for Water Supply and Sewerage Projects. At this juncture, the flawless compilations of the SoR by the CoM unit deserve appreciation. I find pride in placing on record the valuable contribution of all concerned in the publishing of "TWAD Board SoR for 2018-'19". I request the TWAD Board Engineers, to make use of the specifications and rates adeptly in preparing the Estimates.

Managing Director, TWAD Board, Chennai-5



# PROCEEDING OF THE JOINT MANAGING DIRECTOR, TWAD BOARD, HEAD OFFICE, CHEPAUK, CHENNAI-5 PRESENT: Thiru T.Anand, I.A.S., JOINT MANAGING DIRECTOR

#### Proc.No.Sch.rate/CM/AE/2018/dt.29.06.2018

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Sub: TWAD Board-Schedule of Rates for 2018 - 19 - State Level Technical Committee - Rates finalized - Communicated - reg.

Ref: 1. Joint Managing Director, TWAD Board, Chennai-5. Proc. No.8544/SDO.4/COM/2017/dt.31.10.2017

- Engineer In Chief (Buildings), Chief Engineer (Buildings), Chennai Region & Chief Engineer (General), PWD, Chennai-5. Proceedings .No.HDO(A) /22368 /2018-1 / dated 22.05.2018.
- Minutes of the State Level Technical Committee meeting held on 19.06.2018 at TWAD Board, Head Office, Chennai.5

Resolution No. 3.2/Dt. 10.12.2001 of 369<sup>th</sup> Board meeting.

TWAD Board communicated the approved Schedule of Rates of for the year 2017-18 vide reference 1<sup>st</sup> cited, to all the Chief Engineers, Superintending Engineers, Executive Engineers of TWAD Board for adoption.

After due observance of procedures, the proposals for revision of Schedule of Rates for 2018 -19 were placed before the State Level Technical Committee. The State Level Technical Committee of TWAD Board during the meeting on 19.06.2018, deliberated and approved the proposals concerning the Standard Schedule of Rates for 2018-19, in sequel to the publication of Schedule of Rates for PWD vide reference 2<sup>nd</sup> cited.

Accordingly, the approved Standard Schedule of Rates of TWAD Board for the year 2018-19 is communicated herewith for adoption in the preparation of cost estimates with effect from **01.07.2018.** 

The receipt of Standard Schedule of Rates for the year 2018-19 along with the enclosures may be acknowledged.

Encl:

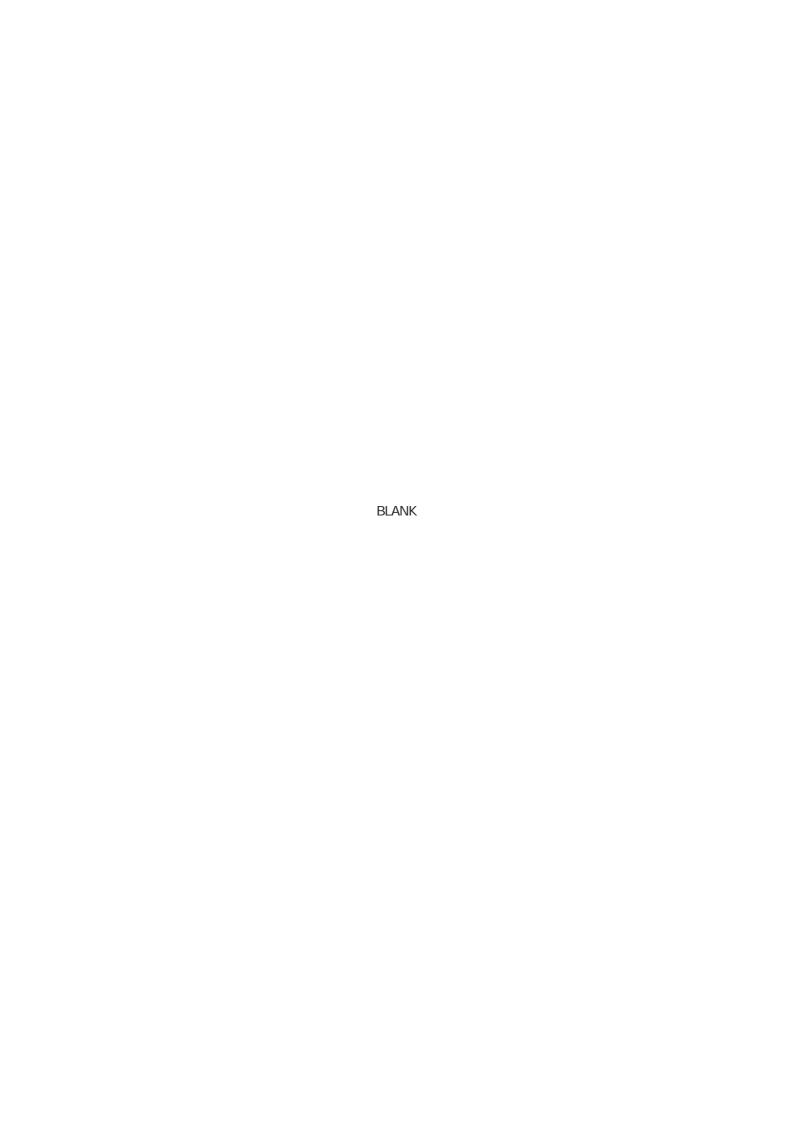
TWAD Board Standard Schedule of Rates

for 2018-19 - One booklet.

Joint Managing Director TWAD Board, Chennai.5.

To

All the Chief Engineers/Superintending Engineers/Executive Engineers of TWAD Board, All the Joint Chief Engineers of Head Office, TWAD Board.



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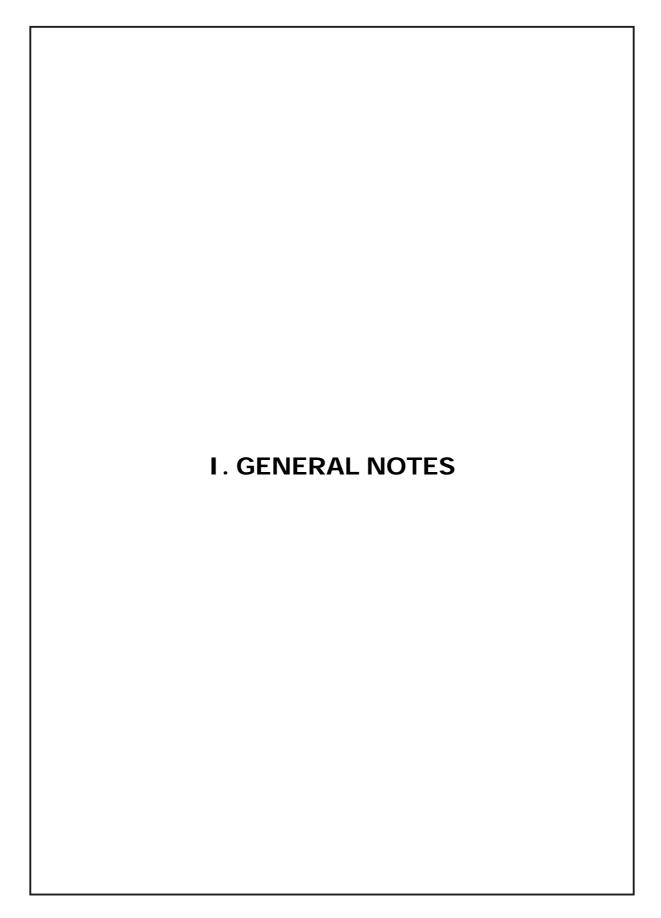
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15	34	Breaking Metals	298
16	35	Cement Mortar	298
17	36	Metal & Iron Works	298
18	37	Conveyance of excavated earth from the narrow street	
		(width less than 3.75m)	298
19	38	Re-Conveyance of earth from the stock yard to the narrow	
		street (width less than 3.75m) for refilling the trenches	298
20	39	Disposal of surplus earth including loading and conveyance	
		within a distance of 5 km	298
21	40	Lighting arrangements (maintenance works) with genset:	298
22	41	Hire charges for deploying earth moving machinery	
		(JCB/Poclain) for earthwork	300
23	42	Supply and delivery of Natural Pebbles filter media	300
24	43	Barricading for pipeline works for the WSS / UGSS works	300
25	44	Shoring and Strutting for the WSS / UGSS works	301
26	45	Trenchless Technology for pipe laying work in	
		railway/NHAI/SH/NH crossings.	302
27	46	Replacement of under ground utilities (HSC pipes,	
		distribution system & pumping main pipes, etc.)	306



#### I. GENERAL NOTES

- For items not covered in the schedule of rates, the Superintending Engineer can fix the rates based on the lowest sealed quotations duly observing all the departmental formalities under intimation to the concerned Chief Engineer and Head Office.
- 2. For special nature of works, for which rates are not covered in the PWD Schedule of Rates, such as Road works, Water Supply, Drainage etc., separate schedule of rates issued by the respective Officers / Department / Board are to be followed.
- 3. Extra percentage other than those for the specified areas noted below, shall not be allowed.

#### 1. Corporation Limits.

An extra 10% on the Rates of Labour, Rates of Works and for Head Load shall be allowed for the works in Erstwhile Chennai Corporation limit and the belt area of 32 km around erstwhile Chennai Corporation limits (i.e) prior to formation of Greater Chennai Corporation, Madurai Corporation limits, Coimbatore Corporation limits and also for works in Hosur Taluk.

2. An extra 5% on the Rates of Labour, Rates of Works and for Head Load shall be allowed for the works in Trichy, Salem, Tirunelveli, Tiruppur, Erode, Thoothukudi and Vellore Corporation limits.

#### 3. Restricted areas:

- I. An extra 10% on the Rates of Labour and Rates of Works shall be allowed for sewer works under unhygienic condition.
- II. An extra 10% on the Rates of Labour, Rates of Works and Conveyance charges shall be allowed for works in the campus of Central Jails.
- III. An extra 5% on the Rates of Labour, Rates of Works and Conveyance charges shall be allowed for works in the campus of **Sub-Jails**.
- IV. An extra 20% on the Rates of Labour, Rates of Materials, Rates of Works, Conveyance Charges and Head Load shall be allowed for works in Reserve Forest Areas.

#### 4. Special Nature of Works

- i. 5 times over the basic rates for earthwork excavation for both rural and urban areas is allowed for putting trial pits.
  - ii. 5 times over the basic rates for earthwork excavation **for leak** rectification works is allowed.

- iii. If the works are done (leak rectification works) in odd hours (i.e) 8.00PM to 8.00AM of the next day, 7.50 times over the basic rate is allowed.
- II. For **individual footings of the service reservoirs**, **valve pits** double the relevant rate for earthwork excavation is allowed.
- III. An extra 5% is allowed for laying of **sewers under UGSS** for earthwork excavation alone below 4m depth.

#### 5. For Works in Hills:

As the transport facilities in most of the Hilly Areas are now considerably improved and as there is no necessity for allowing extra percentage as hitherto followed, the Hilly Areas are now again regrouped as detailed hereunder and the extra percentage allowable has been revised accordingly and fixed.

The conveyance table approved and furnished in the Schedule of Rates under the Head "Conveyance table", "Conveyance of materials by Road on hills" shall be adopted for all works in hills.

- For works in Nilgiris District an extra 40% on the rates of labour, rates of work, head load and an extra 25 % on the rates of materials shall be allowed.
- ii. For works in Mudumalai Sanctuary, Shandy Nallah Sheep Farm, Dansandle areas, an extra 40% over rates of labour, rates of work and head load and an extra 25% on the rates of materials shall be allowed.
- iii. For works in **Valparai Area an extra 40% on the** rates of labour, rates of work, head load and **an extra 25%** on the rates of materials shall be allowed.
- iv. For works in Gudiyalathur, Siruvani, Thavalamalai Hills, Talavadi Hills, Bargur Hills, Anamalai, Chennimalai and Sivanmalai Hills an extra 20% on the Rates of Labour, Rates of Materials, Rates of Works and Head Load shall be allowed.
- v. For works in Western Ghats of Madurai, Virudhunagar, Coimbatore, Tirunelveli & Kanyakumari Districts an extra 20% on the Rates of Labour, Rates of Materials, Rates of Works and Head Load shall be allowed.
- vi. (a) An Extra 50% on the Rates of Labour for works in Thekkady shall be allowed.
- **(b) Add 25% extra** shall be allowable on the Rates of Materials which are to be supplied at Thekkady, subject to the condition that there shall not be any extra on conveyance, tollgate fee, interstate allowance, etc.

- The conveyance charge as applicable for Ghat Road, Cart Track, etc., as per schedule of rates is only applicable.
- vii. An extra 60% shall be allowable on the Rates of Materials to be supplied for Periyar Dam Site subject to the condition that there shall not be any extra on conveyance, tollgate fee, interstate allowance, etc. The conveyance charge as applicable for Ghat Road, Cart Track, etc., as per Schedule of Rates is only applicable.
- viii. An extra 100% on the Rates of Labour for works in Periyar Dam Site under normal condition shall be allowed.
- ix. An extra 150% on the Rates of Labour for works in Periyar Dam Site under hanging condition shall be allowed.
- x. An extra 50% on the Rates of Labour, Rates of Materials, Rates of Works and Head Load shall be allowed for the works at Lower Camp above Kuruvanthu Bridge, Bodi Hills, Cumbam mettu, Sirumalai, Pachai Kamatchi Hills, Palani Hills, Thiruparankundram Hills, Idumban Hills, Megamalai Panchayat and Thummakundu Panchayat.
- xi. An extra 40% on the Rates of Labour, Rates of Works and Head Load and an extra 25% over the rates of materials shall be allowed for the works at Kodaikanal.
- xii. An extra 25% on the Rates of Labour, Rates of Materials, Rates of Works and Head Load shall be allowed for works in Yercaud, Yercaud Sub-Taluk, Boothamalai, Aranuthumalai, Sarugumalai and Thiruchengode Hills in Salem & Namakkal District.
- xiii. An extra 40% on the Rates of Labour, Rates of Works and Head Load and an extra 25% over the Rates of Materials shall be allowed for works in Kalrayan Hills, Pachamalai Hills and Kolli Hills in Salem & Namakkal Districts.
- xiv. An extra 40% on the Rates of Labour, Rates of Works and Head Load and an extra 25% over the Rates of Materials shall be allowed for works in Jawadhu Hills, Elagiri Hills, Kalrayan Hills, Nakkanamalai Hills, Naickerneri Hills in Thiruvannamalai and Vellore Districts.
- xv. An extra 40% on the Rates of Labour, Rates of works and Head Load and an extra 25% over the Rates of Materials shall be allowed for works in Piranmalai covering Oduvarpatti, Kattugudipatti, Ponnadaipattu, V.Pudur Village, Mamalai covering Vannar Irruppu, Nagamangalam Villages, Usilamalai covering Poolankurichi Village, Hillocks at Musundapatti, Usilam, Ammapatti and Thuthampatti in Sivagangai District.

- xvi. An extra 40% on the Rates of Labour, Rates of Works and Head Load and an extra 25% over the Rates of Materials shall be allowed for works in Chitteri Hills, Sittiling in Kalrayan Hills in Dharmapuri District.
- xvii. An extra 40% on the Rates of Labour, Rates of Works and Head Load and an extra 25% over the Rates of Materials shall be allowed for works in Kalrayan Hills in Cuddalore and Villupuram Districts.
- xviii. An extra 40% on the Rates of Labour, Rates of Works and Head Load and an extra 25% over the Rates of Materials shall be allowed for works in Pachamalai Hills in Trichy, Karur and Perambalur Districts.

#### 6. ISLANDS in Ramanathapuram District:

#### a. For works in Rameswaram Island:

An extra 25% on the Rates of Labour, Rates of Works and Head Load shall be allowed.

#### b. For works in Other Islands:

An extra 125% on the Rates of Labour, Rates of Materials, Rates of Works, Conveyance Charges and Head Load shall be allowed for other Islands in Ramanathapuram viz., (1) Upputhannie Island, (2) Puleevilaichalli Island, (3) Aalaippar Island, (4) Valimunai Island, (5) Appa Island, (6) Thalaiyari Island, (7) Valai Island, (8) Mullai Island, (9) Manoli Island (10) Minoliputti Island, (11) Nadu Island, (12) Nallathannie Island, (13) Pullivasal Island, 14) Poomarichan Island, 15) Muyal Island, (16) Singala Island and (17) Kurusedar Island.

#### c. For works in Islands of Thoothukudi District:

An extra 125% on the Rates of Labour, Rates of Materials, Rates of Works, Conveyance Charges and Head Load shall be allowed for Van, Kasuvar, Karaichalli Island and Vilankuchali Islands.

#### 7. TUNNELS:

**An extra 15%** on the Rates of Labour and Rates of Works shall be allowed for works inside Tunnels.

### 8. DAM SITES UNDER HANGING CONDITION (Other than Periyar Dam Site)

An extra 75% on the Rates of Labour employed for the items of works, which may have to be executed by hanging from the top of Dam through slings (or) rope ladders to work in dizzy height. (This will apply only for maintenance and repair works).

#### 9. General Foot Note:

- The rates of labour means the labour rates fixed under the head Rates of Labour.
- **ii)** Rates of works includes the labour for earthwork, refilling foundation, dismantling, jungle clearance, head load etc., also where human labour alone is involved.
- iii) The percentage increase provided for the materials are applicable **only for** the materials which are quarried or manufactured locally in the specified area.
- iv) The percentage increase provided for **Rates of Works** are allowable only on the items where human labour alone is involved.
- v) The percentage increase provided for **Conveyance Charges** are allowable for the distance covered in the specified area / Special Tract only.
- vi) The extra percentage allowable as specified above shall not be applicable for the materials / works covered under "Rates of other construction materials" and "Rates of Electrical items of works". Similarly, no conveyance charges shall be allowed for the items covered under these two categories. The rates approved therein are applicable at site of work.
- vii) While adopting source of any materials inside the special tracts viz., Corporation limits, Reserve Forest Areas, Hilly areas, Islands, Dam Sites etc., where extra percentage allowable for the materials which are quarried or manufactured locally, it is the duty of the officer in charge of the work (not below the rank of Assistant Executive Engineer), to analyse and confirm whether the finished cost of such materials/ works are higher if the materials are conveyed and brought to the site from the areas outside the specified area, where such extra percentage are not permissible.
- viii) The necessity of inclusion of relevant footnotes in respect of the districts covered under their region other than the general notes furnished above, if any, may be analysed and recommendations sent to the Engineer-in-Chief, WRD and Chief Engineer (General), PWD, Chennai-5 for consideration by the Schedule of Rates Committee and approval.
- ix) As per Notification No.31/2017- Central Tax(Rate) dated 13<sup>th</sup> October, 2017 the concessional rate of GST at 12 % [CGST at 6% + SGST at 6%] is leviable for any Government contract, whether Civil or Electrical, irrespective of the GST rate applicable on purchase of goods used in the execution of Government Contract.

The contractor is eligible to get refund of excess tax paid over or liable to pay tax as per Notification No.20/2017, Central Tax (Rate) dated 22.8.2017, Notification No.24/2017, Central Tax (Rate) dated 21.9.2017 and Notification No.31/2017, Central Tax (Rate) dated 13.10.2017.

x) Further, for Works Contract services involving predominantly earth works (that is, constituting more than 75 % of the value of the works contract) supplied to Central Government, State Governments, Local Authority, Governmental Authority for Government Entity shall be taxed at 5 % as per Notification No.31/2017 - Central Tax (Rate) dated 13<sup>th</sup> October, 2017. Therefore, for such contract the amount of GST is to be calculated at 5 % [CGST at 2.5 % + SGST at 2.5 %) over and above the Basic rate.

#### 10. LEAD

District-wise average lead may be approved by the concerned Chief Engineers based on the approved quarry by the PWD.

#### STATEMENT SHOWING THE EXTRA PERCENTAGE ALLOWABLE AS PER GENERAL NOTE TO SCHEDULE OF RATES FOR THE YEAR 2018-2019 (with effect from 01-06-2018)

		PERCENTAGE EXTRA ALLOWABLE ON				
SI. No.	Area	Labour	Material	Rate of work (where human labour involved)	Conveyance	Head Load
1	For works in Erstwhile Chennai Corporation limits and the belt area of 32 KM around erstwhile Chennai Corporation limits (i,e) prior to formation of Greater Chennai Corporation, Madurai Corporation limits, Coimbatore Corporation limits and also for works in Hosur Taluk.	10%	_	10%	_	10%
2.	For works in Trichy, Salem, Tirunelveli, Tiruppur, Erode, Thoothukudi and Vellore Corporation limits.	5%	_	5%	-	5%
3.	Restricted Areas					
i	For Sewer works under unhygienic condition	10%	_	10%	_	_
ii	For works in Central jail Campus	10%	_	10%	10%	_
iii	For works in Sub Jail Campus	5%	_	5%	5%	_
iv	For works in Reserve Forest Areas	20%	20%	20%	20%	20%
4	Hills					
i	For works in Nilgiris District	40%	25%	40%	_	40%
ii	For works at Mudumalai Sanctuary, Shandy Nalla Sheep Farm, Dansandle Area	40%	25%	40%	_	40%
iii	For works at Valparai	40%	25%	40%	_	40%
iv	For works at Gudiyalathur, Siruvani, Thavalamalai Hills, Thalavadi Hills, Bargur Hills, Anamalai, Chennimalai and Sivanmalai Hills	20%	20%	20%	_	20%
V	For works in Western Ghats of Madurai, Virudhunagar, Coimbatore, Tirunelveli and Kanyakumari Districts.	20%	20%	20%	_	20%

		PERCENTAGE EXTRA ALLOWABLE ON				
SI. No.	Area	Labour	Material	Rate of work (where human labour involved)	Conveyance	Head Load
	In Madurai, Theni & Dindigul Districts.					
vi	For works at Thekkady	50%	25%	_	_	_
vii	For works at Periyar Dam Site	_	60%	_	_	_
viii	For works at Periyar Dam Site under normal condition	100%	_	_	_	_
ix	For works at Periyar Dam Site under hanging condition	150%	_	_	_	_
x	For works at Lower Camp above Kuruvanthu Bridge, Bodi Hills, Cumbum Mettu, Sirumalai, Pachai Kamatchi Hills, Palani Hills, Tiruparankundram Hills, Idumban Hills, Megamalai Panchayat and Thummakundu Panchayat	50%	50%	50%	_	50%
хi	For works at Kodaikanal	40%	25%	40%	_	40%
xii	For works at Yercaud Hills, Yercaud Sub - Taluk, Boothamalai, Aranuthumalai, Sarugumalai and Tiruchengodu Hills in Salem & Namakkal Districts.	25%	25%	25%	_	25%
xiii	For works at Kalrayan Hills, Pachamalai Hills, Kolli Hills in Salem and Namakkal Districts.	40%	25%	40%	_	40%
xiv	For works at Jawadhu Hills, Elagiri Hills, Kalrayan Hills, Nakkanamalai Hills, Naickenneri Hills in Thiruvannamalai and Vellore Districts.	40%	25%	40%	_	40%
xv	For works at Piranmalai covering Oduvarpatti, Kattugudipatti, Pannadaipattu, V.Pudur Villages, Mamalai covering Vannar Iruppu, Nagamangalam Villages, Usilamalai covering Poolankurichi Village, Hillocks at Musundapatti, Usilam, Ammapatty and Thuthampatti in Sivagangai District.	40%	25%	40%	_	40%

PERCENTAGE EXTRA A					LLOWABLE ON		
SI. No.	Area	Labour	Material	Rate of work (where human labour involved)	Conveyance	Head Load	
xvi	For works at Chitheri Hills, Sittiling in Kalrayan Hills in Dharmapuri District.	40%	25%	40%	_	40%	
xvii	For works at Kalrayan Hills in Cuddalore and Villupuram Districts.	40%	25%	40%	-	40%	
xviii	For works at Pachamalai Hills in Trichy, Karur and Perambalur Districts.	40%	25%	40%	_	40%	
5	ISLANDS						
I	For works at Rameswaram Island in Ramanathapuram District.	25%	-	25%	-	25%	
ii	For works in other Islands viz., Upputhannie, Puleevilaichalli, Alaiappar, Valimunai, Appa, Thalaiyari, Valai, Mullai, Manoli, Minidiputti, Nadu, Nallathannie, Pullivasal, Poomarichan, Muyal, Singala, Kuruseedar Islands in Ramanathapuram District.	125%	125%	125%	125%	125%	
iii	For works in Van, Kasvar, Karaichalli and Vilankurichi Islands in Thoothukudi District.	125%	125%	125%	125%	125%	
6	TUNNELS						
i	Where human labour alone is involved	15%	-	15%	-	-	
7	DAM SITES UNDER HANGING CONDITION						
i.	For works at dam sites other than Periyar Dam Site, which may be executed by hanging from top of dam through slings or rope ladders to work in dizzy height.	75%	-	-	-	-	

II. RATES FOR LABOUR

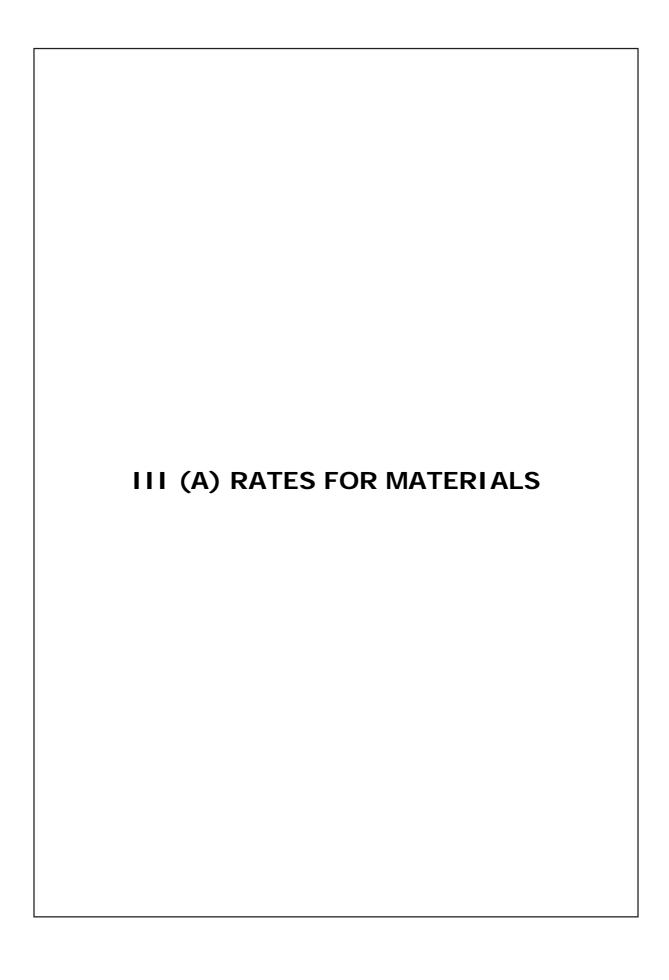
## TWAD BOARD II. RATES FOR LABOUR

Schedule Item No.	Description		Rate for 2018-19 in Rupees
1	Driller	Day	526.00
2	Assistant Driller	Day	432.00
3	Special heavy labour for driving sheet pile	Day	526.00
4	Boring Attendant	Day	384.00
5	Water Meter Reader	Day	367.00
6	Helper for Rig	Day	384.00
7	a. Electrician with LEE/DEE and 'C' certificate	Day	672.00
	b. Electrician with LEE/ DEE	Day	644.00
	c. Electrician with ITI and 'C' Certificate	Day	576.00
	d. Electrician with ITI 'and B' Certificate	Day	526.00
	e. Electrician with ITI	Day	526.00
8	a. Pump Operator with ITI	Day	526.00
	b. Pump Operator without ITI	Day	447.00
9	Laboratory Attender SSLC/ 10th Std passed	Day	367.00
10	a. Filter Bed Operator with D.M.E.	Day	644.00
	b. Filter Bed Operator with ITI	Day	526.00
	c. Filter Bed operator without I.T.I.	Day	447.00
11	Cleaner for Treatment Unit, Pump and vehicles	Day	367.00
12	Boring Mechanic for Hand Boring set	Day	447.00
13	Turn Cock (Experience in pipe line		
	Operation and maintenance	Day	367.00
14	Fitter (Pipe laying / Bar bending) I Class	Day	493.00
15	Fitter (Pipe laying / Bar bending) II Class	Day	458.00
16	Sewer Cleaner	Day	367.00
17	Store Attender SSLC /10th Std Passed	Day	367.00
18	Divers and Well Sinkers	Day	672.00
19	Hammer Man (Geophysical survey)	Day	367.00
20	Geological Assistant	Day	539.00
21	Maintenance Assistant	Day	384.00
22	Plant Operator, SSLC passed with 3 years experience	Day	432.00
23	Reverse Osmosis (R.O.) Plant Operator SSLC		
	passed with 3 years experience	Day	526.00
24	Mechanic with ITI	Day	526.00
25	a. Carpenter I Class	Day	555.00
	b. Carpenter II Class	Day	508.00
26	a. Cleaner I Gr.	Day	295.00
	b. Cleaner II Gr.	Day	280.00
27	a. Fitter I Class	Day	501.00
	b. Fitter II Class	Day	467.00

Schedule Item No.	Description	Unit	Rate for 2018-19 in Rupees
28	Floor Polisher	Day	437.00
29	Gardener	Day	332.00
30	Head Mazdoor for Well sinking	Day	367.00
31	a. Driver (Light duty)	Day	437.00
	b. Driver (Heavy duty)	Day	467.00
32	Jumper Mazdoor	Day	332.00
33	a. Maistry, Road Inspector & Work Inspector	Day	421.00
	b. Maistry, Road Inspector & Work Inspector		
	(Degree holder)	Day	467.00
34	a. Mason for Brick Work - I Class	Day	567.00
	b. Mason for Brick Work - II Class	Day	508.00
35	a. Mason for Stone Work - I Class	Day	567.00
	b. Mason for Stone Work - II Class	Day	508.00
36	a. Mazdoor Category I	Day	355.00
	b. Mazdoor Category II	Day	320.00
	c. Head Mazdoor	Day	367.00
37	a. Moplah - I Class	Day	436.00
	a. Moplah - II Class	Day	403.00
38	a. Painter/Varnisher-I Class	Day	454.00
	b. Painter/Varnisher-II Class	Day	421.00
39	Pile Driver	Day	403.00
40	a. Plumber I Class	Day	493.00
	b. Plumber II Class	Day	458.00
41	Pump Driver	Day	367.00
42	a. Stone cutter- I Class	Day	436.00
	b. Stone cutter- II Class	Day	403.00
43	a. Welder/ Bracer - I Class	Day	436.00
	b. Welder/ Bracer - II Class	Day	403.00
44	Well sinking Diver working with Helmet		
	(above two metres depth of water)	Day	508.00
	Technical Assistant		
45	a. Technical Assistant Gr.I (BE passed)	Day	728.00
	b. Technical Assistant- Gr.II (Diploma in Engg.		
	Passed / B.E. failed/ Degree in Geology		
	for ground water works)	Day	656.00
	c. Technical Assistant Gr.III (Diploma in Engg.		
	Failed / ITI (Civil) passed	Day	555.00
46	a. Laboratory Assistant. Gr.I		
	(Post Graduate in Science)	Day	555.00
	b. Laboratory Assistant. Gr.II (Degree in Science/		
	Degree in Geology for ground water)	Day	508.00
	c. Laboratory Assistant Grade III (with Degree		
	qualification to work as works clerk)	Day	458.00

Schedule Item No.	Description	Unit	Rate for 2018-19 in Rupees
47	a. Mazdoor employed for Geological maping	Day	355.00
	b. Mazdoor employed for Pitting, Trenching,		
	Sampling and Drilling works	Day	355.00
	c. Mazdoor employed for Geophysical		
	Investigation works	Day	355.00
	d. Head Mazdoor to supervise exploratory works	Day	375.00
48	Mixer Operator (including concrete mixer )	Day	386.00
49	Mixer Driver	Day	367.00
50	Compressor Operator	Day	386.00
51	Computer Operator		
	a. Gr.I [B.E. (Computer Science)/		
	M.Sc., (Computer Science)]	Day	728.00
	b. Gr.II [B.Sc., (Computer Science)/		
	Diploma in Computer Science]	Day	656.00
52	Stone & Crusher Operator	Day	386.00
53	Heavy Mazdoor	Day	386.00
54	Wireman Grade I/ Electrician Grade I	Day	494.00
55	Wireman Grade II/ Electrician Grade II	Day	467.00
56	Electrical Helper	Day	352.00
57	Laboratory Attendant	Day	314.00
58	Electrical Maistry	Day	539.00
59	Axe Mazdoor	Day	332.00
60	Blacksmith - 1st Class	Day	437.00
61	Blacksmith - 2nd Class	Day	403.00
62	Boat Mazdoor	Day	367.00
63	Bullocks pair with driver (with bandy)	Day	656.00
64	Bullocks single with driver (with bandy)	Day	472.00
65	Caulker	Day	367.00
66	Ferry Mazdoor	Day	367.00
67	Hammer Mazdoor	Day	352.00
68	Mechanic - 1st Class	Day	437.00
69	Mechanic - 2nd Class	Day	403.00
70	Navagonies or Javali Man - 1st Class	Day	367.00
71	Sawyer	Day	403.00
72	Smith 1st Class	Day	436.00
73	Smith 2nd Class	Day	403.00
74	Sprayer Mazdoor (for bitumen, tar etc.,)	Day	332.00
75	Syrang-1st Class	Day	436.00
76	Syrang-2 nd Class	Day	403.00
77	Thatcher	Day	352.00
78	Tinker 1 st Class	Day	352.00
79	Tinker 2 nd Class	Day	332.00
80	Turner 1 st Class	Day	403.00

Schedule Item No.	Description	Unit	Rate for 2018-19 in Rupees
81	Turner 2 nd Class	Day	367.00
82	Time Keeper Ist Class	Day	436.00
83	Time Keeper 2nd Class	Day	403.00
84	Well Diver for removing silt - 1 st Class	Day	436.00
85	Well Diver for removing silt - 2nd Class	Day	403.00
86	Well sinker - 1st Class	Day	493.00
87	Well sinker - 2nd Class	Day	458.00
88	Wodder	Day	367.00
89	Cinema Operator (ITI Passed)	Day	458.00
90	B.Sc., (Agriculture) Passed- Technical Assistant	Day	656.00
91	Irrigation Community Organiser Grade I [B.E(Agri) passed		
	/B.Sc.,(Agri)Passed/PG (Geology) & Rural Development]	Day	702.00
92	Irrigation Community Organiser Grade II [B.E(Agri) failed/		
	B.Sc.,(Agri)failed /Diploma in Agri. Passed)]	Day	585.00
93	Heat Master Operator	Day	367.00
94	Raker	Day	367.00
95	Lift Operator	Day	421.00
96	Sound Service Operator	Day	352.00



## 1.0 UN PLASTICIZED PVC PIPES FOR POTABLE WATER SUPPLY AS PER IS 4985 / 2000

SI.	Description	Unit	Rate for 2018-19 in Rupees			Rate for 2018-19 in Rupees Unit			s
No			I Quarter	II Quarter	III Quarter	IV Quarter			
ı	4KSC								
1	63mm	Metre	54.00	54.50					
2	75mm	Metre	76.00	76.50					
3	90mm	Metre	106.00	106.50					
4	110mm	Metre	153.00	154.00					
5	140mm	Metre	251.00	252.50					
6	160mm	Metre	322.00	324.00					
7	180mm	Metre	408.00	410.50					
8	200mm	Metre	502.00	505.00					
II	6KSC								
1	50mm	Metre	48.00	48.50					
2	63mm	Metre	77.00	77.50					
3	75mm	Metre	107.00	107.50					
4	90mm	Metre	153.00	154.00					
5	110mm	Metre	217.00	218.50					
6	140mm	Metre	353.00	355.00					
7	160mm	Metre	453.00	455.50					
8	180mm	Metre	588.00	591.50					
9	200mm	Metre	723.00	727.00					
Ш	10KSC								
1	50mm	Metre	77.00	77.50					
2	63mm	Metre	120.00	120.50					
3	75mm	Metre	171.00	172.00					
4	90mm	Metre	227.00	228.50					
5	110mm	Metre	363.00	365.00					
6	140mm	Metre	585.00	588.50					
7	160mm	Metre	760.00	764.50					
8	180mm	Metre	990.00	995.50					
9	200mm	Metre	1192.00	1198.50					

- 1) The above rates are basic rates inclusive of transportation charges to stockyard anywhere in Tamilnadu.
- 2) Unloading, stacking at stock yard and Conveyance from stock yard to site are extra.
- 3) GST extra applicable as per GO

#### 1.1 PVC CASING PIPE AS PER IS 12818 / 2010

SI.	Description	Unit	F	Rate for 2018	-19 in Rupee	s
No	•		I Quarter	II Quarter	III Quarter	IV Quarter
1	150mm CS	Metre	629.00	632.00		
2	150mm CM	Metre	795.00	799.00		
3	150mm RS	Metre	936.00	940.00		
4	200mm CS	Metre	1148.00	1153.50		
5	200mm CM	Metre	1442.00	1449.00		
6	200mm RS	Metre	1708.00	1715.00		

Note:

- 1) The above rates are basic rates inclusive of transportation charges to stockyard anywhere in Tamilnadu.
- 2) Unloading, stacking at stock yard and Conveyance from stock yard to site are extra.
- 3) GST extra applicable as per GO

CS - Casing Shallow depth CM - Casing Medium depth RS - Ribbed screen pipe up to 80m 81m to 250m

#### 1.2 UN PLASTICIZED NON - PRESSURE POLYVINYL CHLORIDE (PVC-U) PIPES FOR USE IN UNDERGROUND DRAINAGE AND SEWERAGE SYSTEMS AS PER IS 15328/2003

SI. No.	Description	Unit	Rate for 2018- 19 in Rupees
ı	SN8-SDR 34(S 16.5)		
1	110mm	Per Metre	226.00
2	125mm	Per Metre	301.00
3	160mm	Per Metre	483.00
4	200mm	Per Metre	763.00
5	250mm	Per Metre	1187.00
6	315mm	Per Metre	1917.00
II	SN4-SDR 41(S 20)		
1	125mm	Per Metre	244.00
2	160mm	Per Metre	331.00
3	200mm	Per Metre	525.00
4	250mm	Per Metre	822.00
5	315mm	Per Metre	1272.00
Ш	SN2-SDR 51(S 25)		
1	160mm	Per Metre	333.00
2	200mm	Per Metre	514.00
3	250mm	Per Metre	807.00
4	315mm	Per Metre	1304.00

Note:

- 1) The above rates are basic rates inclusive of transportation charges to stockyard anywhere in Tamilnadu.
- 2) Unloading, stacking at stock yard and Conveyance from stock yard to site are extra.
- 3) GST extra applicable as per GO

#### 1.3 UPVC- Column Pipe

SI.No.	Description	Unit	Rate for 2018 -19 in Rupees
1	25mm	Per Metre	67.00
2	32mm	Per Metre	107.00
3	40mm	Per Metre	143.00
4	50mm	Per Metre	231.00
5	65mm	Per Metre	298.00
6	80mm	Per Metre	412.00
7	100mm	Per Metre	618.00

- 1) The above rates are basic rates inclusive of transportation charges to stockyard anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

#### 1.4 PVC SPECIALS AS PER IS 7834/1987

SI.No.	Description	Unit	Rate for 2018 -19 in Rupees
	PVC THREADED COUPLER		
1	63 mm x 50 mm	Each	40.00
2	75 mm x 50 mm	Each	62.00
3	90 mm x 80 mm	Each	78.00
4	110 mm x 100 mm	Each	139.00
5	140 mm x 125 mm	Each	195.00
	UNEQUAL TEE		
1	63 mm x 50 mm	Each	71.00
2	75 mm X 50 mm	Each	139.00
3	90 mm x 50 mm	Each	168.00
4	90 mm x 63 mm	Each	168.00
5	90 mm x 75 mm	Each	170.00
6	110 mm x 50 mm	Each	248.00
7	110mm x 63 mm	Each	248.00
8	110 mm x 90mm	Each	252.00
9	140mm x 50 mm	Each	410.00
10	140 mm x 63 mm	Each	410.00
11	140 mm x 90 mm	Each	410.00
12	140 mm x 110 mm	Each	410.00
13	160 mm x 50 mm	Each	503.00
14	160 mm x 63 mm	Each	503.00
15	160 mm x 90 mm	Each	503.00
16	160 mm x 110mm	Each	503.00
17	160 mm x140 mm	Each	595.00
	PVC REDUCER COUPLER		
1	63 mm x 50 mm	Each	41.00
2	75 mm x 63 mm	Each	43.00
3	90 mm x 63 mm	Each	67.00
4	90 mm x 75 mm	Each	67.00
5	110 mm x 63 mm	Each	84.00
6	110 mm x 75 mm	Each	84.00
7	110 mm x 90 mm	Each	106.00
8	140 mm x 63 mm	Each	122.00
9	140 mm x 90 mm	Each	124.00
10	140 mm x 110 mm	Each	127.00
11	160 mm x 110 mm	Each	195.00
12	160 mm x 140 mm	Each	216.00

SI.No.	Description	Unit	Rate for 2018 -19 in Rupees
	PVC REDUCER MULTI STAGE		
1	90 mm x 63 mm	Each	88.00
2	110 mm x 63 mm	Each	167.00
3	110 mm x 75 mm	Each	167.00
4	110 mm x 90 mm	Each	191.00
5	140 mm x 90 mm	Each	195.00
	PVC REDUCER FABRICATED		
1	75 mm x 63 mm	Each	58.00
2	90 mm x 75 mm	Each	82.00
3	110 mm x 90 mm	Each	124.00
4	140 mm x 110 mm	Each	195.00
5	160 mm x 140 mm	Each	298.00
	SADDLE PIECE		
1	63 mm x 20 mm	Each	82.00
2	75 mm x 20 mm	Each	101.00
3	90 mm x 20 mm	Each	119.00
4	110 mm x 20 mm	Each	129.00
5	140 mm x 20 mm	Each	191.00
6	160 mm x 20 mm	Each	252.00

Note: 1) The above rates are basic rates inclusive of transportation charges to stockyard anywhere in Tamilnadu.

cont.. PVC SPECIALS AS PER IS 10124/1982 Part-II 1.5

S	:						Rate for	2018 -19	in Rupees	ees			
No.	Description	20mm	25mm	32mm	40mm	50mm	63mm	75mm	90mm	110mm	140mm	160mm	200mm
1	PVC Couplers fabricated 4 KSC	'	ı	-	,	14	77	92	83	<i>L</i> 9	127	160	267
2	PVC Couplers fabricated 6 KSC	1	'	-	1	21	92	29	53	82	167	226	423
3	PVC Bends fabricated 4 KSC	-	-	-	-	37	43	89	108	152	405	651	1242
4	PVC Bends fabricated 6 KSC	1	1	-	ı	9	2	112	152	248	641	1048	2120
5	PVC Equal Tee Fabricated 4 KSC	1	-	-	-	40	48	51	124	186	284	343	426
9	PVC Equal Tee Fabricated												
	BIS 10124/1982 PartV 6 KSC	ı	1	-	1	43	92	124	193	318	417	441	539
7	PVC Couplers (Mould)												
	BIS 7834/1975 Part VI	7	12	13	21	32	23	82	124	166	244	329	503
8	PVC Elbow (Mould)												
	BIS 7834/1975 Part VI	8	12	15	88	23	59	82	124	189	375	458	550
6	PVC Equal tee (Mould)												
	BIS 7834/1975	6	20	23	30	60	105	122	195	303	739	827	1238
10	PVC Male Threaded Adopter	-	-	-	-	28	40	41	69	124	185	210	303
11	PVC End Cap	3	2	8	<b>EI</b>	16	72	47	69	76	189	792	405
12	PVC Tail piece without flange												
	(BIS marks)	•	-	-	1	8	35	4	64	92	164	240	334
13	PVC flanged Tail piece	'	,	-	•	•	185	222	277	324	538	705	1055

The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu. 1) Note:

GST extra applicable as per GO

#### 2.0 HDPE PIPES - PE 100 AS PER IS 4984/2016

No	SI.	Description	Unit	F	Rate for 2018	-19 in Rupee	s
1         50 mm         Metre         70.00         71.50           2         63 mm         Metre         109.00         111.50           3         75 mm         Metre         155.00         158.50           4         90 mm         Metre         214.00         219.50           5         110 mm         Metre         317.00         324.50           6         125 mm         Metre         411.00         421.00           7         140 mm         Metre         515.00         527.50           8         160 mm         Metre         671.00         687.50           9         180 mm         Metre         845.00         865.50           10         200 mm         Metre         1044.00         1069.50           11         225 mm         Metre         1325.00         1357.50           12         250 mm         Metre         2038.00         2088.00           13         280 mm         Metre         2581.00         2644.00           15         355 mm         Metre         2581.00         2644.00           15         355 mm         Metre         4228.00         4331.50           17	No			I Quarter	II Quarter	III Quarter	IV Quarter
2         63 mm         Metre         109.00         111.50           3         75 mm         Metre         155.00         158.50           4         90 mm         Metre         214.00         219.50           5         110 mm         Metre         317.00         324.50           6         125 mm         Metre         411.00         421.00           7         140 mm         Metre         515.00         527.50           8         160 mm         Metre         671.00         687.50           9         180 mm         Metre         845.00         865.50           10         200 mm         Metre         1064.00         1069.50           11         225 mm         Metre         1325.00         1357.50           12         250 mm         Metre         1325.00         1365.00           13         280 mm         Metre         2038.00         2088.00           14         315 mm         Metre         2369.00         3349.00           15         355 mm         Metre         4228.00         4331.50           17         450 mm         Metre         5497.00         5628.00           18		PN 6					
3         75 mm         Metre         155.00         158.50           4         90 mm         Metre         214.00         219.50           5         110 mm         Metre         317.00         324.50           6         125 mm         Metre         411.00         421.00           7         140 mm         Metre         515.00         527.50           8         160 mm         Metre         671.00         687.50           9         180 mm         Metre         671.00         687.50           9         180 mm         Metre         845.00         865.50           10         200 mm         Metre         1044.00         1069.50           11         225 mm         Metre         1625.00         1357.50           12         250 mm         Metre         1625.00         1665.00           13         280 mm         Metre         2038.00         2088.00           14         315 mm         Metre         2581.00         2644.00           15         355 mm         Metre         4228.00         4331.50           17         450 mm         Metre         5490.00         6958.00           18	1	50 mm	Metre	70.00	71.50		
4         90 mm         Metre         214.00         219.50           5         110 mm         Metre         317.00         324.50           6         125 mm         Metre         411.00         421.00           7         140 mm         Metre         515.00         527.50           8         160 mm         Metre         671.00         687.50           9         180 mm         Metre         671.00         687.50           10         200 mm         Metre         1044.00         1069.50           11         225 mm         Metre         1325.00         1357.50           12         250 mm         Metre         1625.00         1655.00           13         280 mm         Metre         2038.00         2088.00           14         315 mm         Metre         2581.00         2644.00           15         355 mm         Metre         3269.00         3349.00           16         400 mm         Metre         5497.00         5628.00           17         450 mm         Metre         5497.00         5628.00           18         500 mm         Metre         879.00         8782.00           20<	2	63 mm	Metre	109.00	111.50		
5         110 mm         Metre         317.00         324.50           6         125 mm         Metre         411.00         421.00           7         140 mm         Metre         515.00         527.50           8         160 mm         Metre         671.00         687.50           9         180 mm         Metre         671.00         687.50           10         200 mm         Metre         1069.50           11         225 mm         Metre         1069.50           12         250 mm         Metre         1325.00         1357.50           12         250 mm         Metre         1665.00         1357.50           12         250 mm         Metre         1625.00         1665.00           13         280 mm         Metre         2038.00         2088.00           14         315 mm         Metre         2281.00         2644.00           15         355 mm         Metre         2369.00         3349.00           16         400 mm         Metre         5497.00         5628.00           18         500 mm         Metre         5497.00         5628.00           19         560 mm         Metr	3	75 mm	Metre	155.00	158.50		
6         125 mm         Metre         411.00         421.00           7         140 mm         Metre         515.00         527.50           8         160 mm         Metre         671.00         687.50           9         180 mm         Metre         845.00         865.50           10         200 mm         Metre         1044.00         1069.50           11         225 mm         Metre         1325.00         1357.50           12         250 mm         Metre         1325.00         1357.50           12         250 mm         Metre         1328.00         2088.00           13         280 mm         Metre         2038.00         2088.00           14         315 mm         Metre         2581.00         2644.00           15         355 mm         Metre         3269.00         3349.00           16         400 mm         Metre         4228.00         4331.50           17         450 mm         Metre         5497.00         5628.00           18         500 mm         Metre         8579.00         8782.00           20         630 mm         Metre         10862.00         11118.50	4	90 mm	Metre	214.00	219.50		
7         140 mm         Metre         515.00         527.50           8         160 mm         Metre         671.00         687.50           9         180 mm         Metre         845.00         865.50           10         200 mm         Metre         1044.00         1069.50           11         225 mm         Metre         1325.00         1357.50           12         250 mm         Metre         1625.00         1665.00           13         280 mm         Metre         2038.00         2088.00           14         315 mm         Metre         2581.00         2644.00           15         355 mm         Metre         3269.00         3349.00           16         400 mm         Metre         4228.00         4331.50           17         450 mm         Metre         5497.00         5628.00           18         500 mm         Metre         879.00         6958.00           19         560 mm         Metre         879.00         8782.00           20         630 mm         Metre         136.00         139.50           3         75 mm         Metre         136.00         139.50	5	110 mm	Metre	317.00	324.50		
8         160 mm         Metre         671.00         687.50           9         180 mm         Metre         845.00         865.50           10         200 mm         Metre         1044.00         1069.50           11         225 mm         Metre         1325.00         1357.50           12         250 mm         Metre         165.00         1665.00           13         280 mm         Metre         2038.00         2088.00           14         315 mm         Metre         2038.00         2644.00           15         355 mm         Metre         3269.00         3349.00           16         400 mm         Metre         4228.00         4331.50           17         450 mm         Metre         5497.00         5628.00           18         500 mm         Metre         6796.00         6958.00           19         560 mm         Metre         879.00         8782.00           20         630 mm         Metre         10862.00         11118.50           PN8         1         50 mm         Metre         136.00         139.50           3         75 mm         Metre         196.50         4	6	125 mm	Metre	411.00	421.00		
9         180 mm         Metre         845.00         865.50           10         200 mm         Metre         1044.00         1069.50           11         225 mm         Metre         1325.00         1357.50           12         250 mm         Metre         1625.00         1665.00           13         280 mm         Metre         2038.00         2088.00           14         315 mm         Metre         2581.00         2644.00           15         355 mm         Metre         3269.00         3349.00           16         400 mm         Metre         4228.00         4331.50           17         450 mm         Metre         5497.00         5628.00           18         500 mm         Metre         6796.00         6958.00           19         560 mm         Metre         8579.00         8782.00           20         630 mm         Metre         10862.00         11118.50           PN 8         1         50 mm         Metre         136.00         139.50           3         75 mm         Metre         136.00         139.50           3         75 mm         Metre         127.00         196.50     <	7	140 mm	Metre	515.00	527.50		
10         200 mm         Metre         1044.00         1069.50           11         225 mm         Metre         1325.00         1357.50           12         250 mm         Metre         1625.00         1665.00           13         280 mm         Metre         2038.00         2088.00           14         315 mm         Metre         2581.00         2644.00           15         355 mm         Metre         3269.00         3349.00           16         400 mm         Metre         4228.00         4331.50           17         450 mm         Metre         5497.00         5628.00           18         500 mm         Metre         6796.00         6958.00           19         560 mm         Metre         8579.00         8782.00           20         630 mm         Metre         10862.00         11118.50           PN 8         1         50 mm         Metre         136.00         139.50           3         75 mm         Metre         192.00         196.50           4         90 mm         Metre         275.00         282.00           5         110 mm         Metre         412.00         422.00     <	8	160 mm	Metre	671.00	687.50		
11         225 mm         Metre         1325.00         1357.50           12         250 mm         Metre         1625.00         1665.00           13         280 mm         Metre         2038.00         2088.00           14         315 mm         Metre         2581.00         2644.00           15         355 mm         Metre         3269.00         3349.00           16         400 mm         Metre         4228.00         4331.50           17         450 mm         Metre         5497.00         5628.00           18         500 mm         Metre         6796.00         6958.00           19         560 mm         Metre         8579.00         8782.00           20         630 mm         Metre         10862.00         11118.50           PN 8           1         50 mm         Metre         87.00         89.00           2         63 mm         Metre         136.00         139.50           3         75 mm         Metre         192.00         196.50           4         90 mm         Metre         275.00         282.00           5         110 mm         Metre         528.00	9	180 mm	Metre	845.00	865.50		
12         250 mm         Metre         1625.00         1665.00           13         280 mm         Metre         2038.00         2088.00           14         315 mm         Metre         2581.00         2644.00           15         355 mm         Metre         3269.00         3349.00           16         400 mm         Metre         4228.00         4331.50           17         450 mm         Metre         5497.00         5628.00           18         500 mm         Metre         6796.00         6958.00           19         560 mm         Metre         879.00         8782.00           20         630 mm         Metre         10862.00         11118.50           PN 8           1         50 mm         Metre         89.00           2         63 mm         Metre         136.00         139.50           3         75 mm         Metre         192.00         196.50           4         90 mm         Metre         275.00         282.00           5         110 mm         Metre         412.00         422.00           6         125 mm         Metre         560.00         576.00 <td>10</td> <td>200 mm</td> <td>Metre</td> <td>1044.00</td> <td>1069.50</td> <td></td> <td></td>	10	200 mm	Metre	1044.00	1069.50		
13         280 mm         Metre         2038.00         2088.00           14         315 mm         Metre         2581.00         2644.00           15         355 mm         Metre         3269.00         3349.00           16         400 mm         Metre         4228.00         4331.50           17         450 mm         Metre         5497.00         5628.00           18         500 mm         Metre         6796.00         6958.00           19         560 mm         Metre         8579.00         8782.00           20         630 mm         Metre         10862.00         11118.50           PN 8           1         50 mm         Metre         87.00         89.00           2         63 mm         Metre         136.00         139.50           3         75 mm         Metre         192.00         196.50           4         90 mm         Metre         275.00         282.00           5         110 mm         Metre         412.00         422.00           6         125 mm         Metre         528.00         541.00           7         140 mm         Metre         864.00 <t< td=""><td>11</td><td>225 mm</td><td>Metre</td><td>1325.00</td><td>1357.50</td><td></td><td></td></t<>	11	225 mm	Metre	1325.00	1357.50		
14         315 mm         Metre         2581.00         2644.00           15         355 mm         Metre         3269.00         3349.00           16         400 mm         Metre         4228.00         4331.50           17         450 mm         Metre         5497.00         5628.00           18         500 mm         Metre         6796.00         6958.00           19         560 mm         Metre         8579.00         8782.00           20         630 mm         Metre         10862.00         11118.50           PN 8         1         50 mm         Metre         87.00         89.00           2         63 mm         Metre         136.00         139.50           3         75 mm         Metre         192.00         196.50           4         90 mm         Metre         275.00         282.00           5         110 mm         Metre         412.00         422.00           6         125 mm         Metre         528.00         541.00           7         140 mm         Metre         660.00         676.00           8         160 mm         Metre         1089.00         1115.50	12	250 mm	Metre	1625.00	1665.00		
15         355 mm         Metre         3269.00         3349.00           16         400 mm         Metre         4228.00         4331.50           17         450 mm         Metre         5497.00         5628.00           18         500 mm         Metre         6796.00         6958.00           19         560 mm         Metre         8579.00         8782.00           20         630 mm         Metre         10862.00         11118.50           PN 8         1         50 mm         Metre         87.00         89.00           2         63 mm         Metre         136.00         139.50           3         75 mm         Metre         192.00         196.50           4         90 mm         Metre         275.00         282.00           5         110 mm         Metre         412.00         422.00           6         125 mm         Metre         528.00         541.00           7         140 mm         Metre         864.00         885.00           9         180 mm         Metre         1089.00         1115.50           10         200 mm         Metre         1342.00         1375.00	13	280 mm	Metre	2038.00	2088.00		
16         400 mm         Metre         4228.00         4331.50           17         450 mm         Metre         5497.00         5628.00           18         500 mm         Metre         6796.00         6958.00           19         560 mm         Metre         8579.00         8782.00           20         630 mm         Metre         10862.00         11118.50           PN 8         1         50 mm         Metre         89.00           2         63 mm         Metre         136.00         139.50           3         75 mm         Metre         192.00         196.50           4         90 mm         Metre         275.00         282.00           5         110 mm         Metre         412.00         422.00           6         125 mm         Metre         528.00         541.00           7         140 mm         Metre         660.00         676.00           8         160 mm         Metre         1089.00         1115.50           10         200 mm         Metre         1342.00         1375.00           11         225 mm         Metre         2094.00         2145.50           12	14	315 mm	Metre	2581.00	2644.00		
17       450 mm       Metre       5497.00       5628.00         18       500 mm       Metre       6796.00       6958.00         19       560 mm       Metre       8579.00       8782.00         20       630 mm       Metre       10862.00       11118.50         PN 8         1       50 mm       Metre       89.00         2       63 mm       Metre       136.00       139.50         3       75 mm       Metre       192.00       196.50         4       90 mm       Metre       275.00       282.00         5       110 mm       Metre       412.00       422.00         6       125 mm       Metre       528.00       541.00         7       140 mm       Metre       660.00       676.00         8       160 mm       Metre       864.00       885.00         9       180 mm       Metre       1089.00       1115.50         10       200 mm       Metre       1342.00       1375.00         11       225 mm       Metre       2094.00       2145.50         13       280 mm       Metre       2627.00       2691.50 <t< td=""><td>15</td><td>355 mm</td><td>Metre</td><td>3269.00</td><td>3349.00</td><td></td><td></td></t<>	15	355 mm	Metre	3269.00	3349.00		
18         500 mm         Metre         6796.00         6958.00           19         560 mm         Metre         8579.00         8782.00           20         630 mm         Metre         10862.00         11118.50           PN 8           1         50 mm         Metre         87.00         89.00           2         63 mm         Metre         136.00         139.50           3         75 mm         Metre         192.00         196.50           4         90 mm         Metre         275.00         282.00           5         110 mm         Metre         412.00         422.00           6         125 mm         Metre         528.00         541.00           7         140 mm         Metre         660.00         676.00           8         160 mm         Metre         864.00         885.00           9         180 mm         Metre         1089.00         1115.50           10         200 mm         Metre         1702.00         1743.50           12         250 mm         Metre         2094.00         2145.50           13         280 mm         Metre         2627.00         269	16	400 mm	Metre	4228.00	4331.50		
19         560 mm         Metre         8579.00         8782.00           20         630 mm         Metre         10862.00         11118.50           PN 8           1         50 mm         Metre         89.00           2         63 mm         Metre         136.00         139.50           3         75 mm         Metre         192.00         196.50           4         90 mm         Metre         275.00         282.00           5         110 mm         Metre         412.00         422.00           6         125 mm         Metre         528.00         541.00           7         140 mm         Metre         660.00         676.00           8         160 mm         Metre         885.00           9         180 mm         Metre         1089.00         1115.50           10         200 mm         Metre         1342.00         1375.00           11         225 mm         Metre         2094.00         2145.50           12         250 mm         Metre         2094.00         2145.50           13         280 mm         Metre         2627.00         2691.50           14 <td>17</td> <td>450 mm</td> <td>Metre</td> <td>5497.00</td> <td>5628.00</td> <td></td> <td></td>	17	450 mm	Metre	5497.00	5628.00		
PN 8         Metre         10862.00         11118.50           PN 8         1         50 mm         Metre         87.00         89.00           2         63 mm         Metre         136.00         139.50           3         75 mm         Metre         192.00         196.50           4         90 mm         Metre         275.00         282.00           5         110 mm         Metre         412.00         422.00           6         125 mm         Metre         528.00         541.00           7         140 mm         Metre         660.00         676.00           8         160 mm         Metre         885.00           9         180 mm         Metre         1089.00         1115.50           10         200 mm         Metre         1342.00         1375.00           11         225 mm         Metre         1702.00         1743.50           12         250 mm         Metre         2094.00         2145.50           13         280 mm         Metre         2627.00         2691.50           14         315 mm         Metre         3324.00         3405.50           15         355 mm	18	500 mm	Metre	6796.00	6958.00		
PN 8         87.00         89.00           2         63 mm         Metre         136.00         139.50           3         75 mm         Metre         192.00         196.50           4         90 mm         Metre         275.00         282.00           5         110 mm         Metre         412.00         422.00           6         125 mm         Metre         528.00         541.00           7         140 mm         Metre         660.00         676.00           8         160 mm         Metre         885.00           9         180 mm         Metre         1089.00         1115.50           10         200 mm         Metre         1342.00         1375.00           11         225 mm         Metre         1702.00         1743.50           12         250 mm         Metre         2094.00         2145.50           13         280 mm         Metre         2627.00         2691.50           14         315 mm         Metre         3324.00         3405.50           15         355 mm         Metre         5450.00         5583.50	19	560 mm	Metre	8579.00	8782.00		
1       50 mm       Metre       87.00       89.00         2       63 mm       Metre       136.00       139.50         3       75 mm       Metre       192.00       196.50         4       90 mm       Metre       275.00       282.00         5       110 mm       Metre       412.00       422.00         6       125 mm       Metre       528.00       541.00         7       140 mm       Metre       660.00       676.00         8       160 mm       Metre       885.00         9       180 mm       Metre       1089.00       1115.50         10       200 mm       Metre       1342.00       1375.00         11       225 mm       Metre       1702.00       1743.50         12       250 mm       Metre       2094.00       2145.50         13       280 mm       Metre       2627.00       2691.50         14       315 mm       Metre       3324.00       3405.50         15       355 mm       Metre       5450.00       5583.50	20	630 mm	Metre	10862.00	11118.50		
2       63 mm       Metre       136.00       139.50         3       75 mm       Metre       192.00       196.50         4       90 mm       Metre       275.00       282.00         5       110 mm       Metre       412.00       422.00         6       125 mm       Metre       528.00       541.00         7       140 mm       Metre       660.00       676.00         8       160 mm       Metre       885.00         9       180 mm       Metre       1089.00       1115.50         10       200 mm       Metre       1342.00       1375.00         11       225 mm       Metre       1702.00       1743.50         12       250 mm       Metre       2094.00       2145.50         13       280 mm       Metre       2627.00       2691.50         14       315 mm       Metre       324.00       3405.50         15       355 mm       Metre       5450.00       5583.50		PN 8					
3         75 mm         Metre         192.00         196.50           4         90 mm         Metre         275.00         282.00           5         110 mm         Metre         412.00         422.00           6         125 mm         Metre         528.00         541.00           7         140 mm         Metre         660.00         676.00           8         160 mm         Metre         885.00           9         180 mm         Metre         1089.00         1115.50           10         200 mm         Metre         1342.00         1375.00           11         225 mm         Metre         1702.00         1743.50           12         250 mm         Metre         2094.00         2145.50           13         280 mm         Metre         2627.00         2691.50           14         315 mm         Metre         3324.00         3405.50           15         355 mm         Metre         5450.00         5583.50	1	50 mm	Metre	87.00	89.00		
4       90 mm       Metre       275.00       282.00         5       110 mm       Metre       412.00       422.00         6       125 mm       Metre       528.00       541.00         7       140 mm       Metre       660.00       676.00         8       160 mm       Metre       885.00         9       180 mm       Metre       1089.00       1115.50         10       200 mm       Metre       1342.00       1375.00         11       225 mm       Metre       1702.00       1743.50         12       250 mm       Metre       2094.00       2145.50         13       280 mm       Metre       2627.00       2691.50         14       315 mm       Metre       3324.00       3405.50         15       355 mm       Metre       4206.00       4309.00         16       400 mm       Metre       5450.00       5583.50	2	63 mm	Metre	136.00	139.50		
5       110 mm       Metre       412.00       422.00         6       125 mm       Metre       528.00       541.00         7       140 mm       Metre       660.00       676.00         8       160 mm       Metre       864.00       885.00         9       180 mm       Metre       1089.00       1115.50         10       200 mm       Metre       1342.00       1375.00         11       225 mm       Metre       1702.00       1743.50         12       250 mm       Metre       2094.00       2145.50         13       280 mm       Metre       2627.00       2691.50         14       315 mm       Metre       3324.00       3405.50         15       355 mm       Metre       4206.00       4309.00         16       400 mm       Metre       5450.00       5583.50	3	75 mm	Metre	192.00	196.50		
6       125 mm       Metre       528.00       541.00         7       140 mm       Metre       660.00       676.00         8       160 mm       Metre       864.00       885.00         9       180 mm       Metre       1089.00       1115.50         10       200 mm       Metre       1342.00       1375.00         11       225 mm       Metre       1702.00       1743.50         12       250 mm       Metre       2094.00       2145.50         13       280 mm       Metre       2627.00       2691.50         14       315 mm       Metre       3324.00       3405.50         15       355 mm       Metre       4206.00       4309.00         16       400 mm       Metre       5450.00       5583.50	4	90 mm	Metre	275.00	282.00		
7       140 mm       Metre       660.00       676.00         8       160 mm       Metre       864.00       885.00         9       180 mm       Metre       1089.00       1115.50         10       200 mm       Metre       1342.00       1375.00         11       225 mm       Metre       1702.00       1743.50         12       250 mm       Metre       2094.00       2145.50         13       280 mm       Metre       2627.00       2691.50         14       315 mm       Metre       3324.00       3405.50         15       355 mm       Metre       4206.00       4309.00         16       400 mm       Metre       5450.00       5583.50	5	110 mm	Metre	412.00	422.00		
8       160 mm       Metre       864.00       885.00         9       180 mm       Metre       1089.00       1115.50         10       200 mm       Metre       1342.00       1375.00         11       225 mm       Metre       1702.00       1743.50         12       250 mm       Metre       2094.00       2145.50         13       280 mm       Metre       2627.00       2691.50         14       315 mm       Metre       3324.00       3405.50         15       355 mm       Metre       4206.00       4309.00         16       400 mm       Metre       5450.00       5583.50	6	125 mm	Metre	528.00	541.00		
9       180 mm       Metre       1089.00       1115.50         10       200 mm       Metre       1342.00       1375.00         11       225 mm       Metre       1702.00       1743.50         12       250 mm       Metre       2094.00       2145.50         13       280 mm       Metre       2627.00       2691.50         14       315 mm       Metre       3324.00       3405.50         15       355 mm       Metre       4206.00       4309.00         16       400 mm       Metre       5450.00       5583.50	7	140 mm	Metre	660.00	676.00		
10       200 mm       Metre       1342.00       1375.00         11       225 mm       Metre       1702.00       1743.50         12       250 mm       Metre       2094.00       2145.50         13       280 mm       Metre       2627.00       2691.50         14       315 mm       Metre       3324.00       3405.50         15       355 mm       Metre       4206.00       4309.00         16       400 mm       Metre       5450.00       5583.50	8	160 mm	Metre	864.00	885.00		
11     225 mm     Metre     1702.00     1743.50       12     250 mm     Metre     2094.00     2145.50       13     280 mm     Metre     2627.00     2691.50       14     315 mm     Metre     3324.00     3405.50       15     355 mm     Metre     4206.00     4309.00       16     400 mm     Metre     5450.00     5583.50	9	180 mm	Metre	1089.00	1115.50		
12     250 mm     Metre     2094.00     2145.50       13     280 mm     Metre     2627.00     2691.50       14     315 mm     Metre     3324.00     3405.50       15     355 mm     Metre     4206.00     4309.00       16     400 mm     Metre     5450.00     5583.50	10	200 mm	Metre	1342.00	1375.00		
13     280 mm     Metre     2627.00     2691.50       14     315 mm     Metre     3324.00     3405.50       15     355 mm     Metre     4206.00     4309.00       16     400 mm     Metre     5450.00     5583.50	11	225 mm	Metre	1702.00	1743.50		
14     315 mm     Metre     3324.00     3405.50       15     355 mm     Metre     4206.00     4309.00       16     400 mm     Metre     5450.00     5583.50	12	250 mm	Metre	2094.00	2145.50		
15         355 mm         Metre         4206.00         4309.00           16         400 mm         Metre         5450.00         5583.50	13	280 mm	Metre	2627.00	2691.50		
16 400 mm Metre 5450.00 5583.50	14	315 mm	Metre	3324.00	3405.50		
	15	355 mm	Metre	4206.00	4309.00		
17 450 mm Metre 7038.00 7207.00	16	400 mm	Metre	5450.00	5583.50		
	17	450 mm	Metre	7038.00	7207.00		

SI.	Description	Unit	F	Rate for 2018	-19 in Rupee	S
No			I Quarter	II Quarter	III Quarter	IV Quarter
18	500 mm	Metre	8699.00	8907.50		
19	560 mm	Metre	11075.00	11337.00		
20	630 mm	Metre	13971.00	14302.00		
	PN 10					
1	50 mm	Metre	106.00	108.50		
2	63 mm	Metre	164.00	168.00		
3	75 mm	Metre	236.00	241.50		
4	90 mm	Metre	334.00	342.00		
5	110 mm	Metre	495.00	507.00		
6	125 mm	Metre	638.00	653.50		
7	140 mm	Metre	796.00	815.50		
8	160 mm	Metre	1042.00	1067.50		
9	180 mm	Metre	1323.00	1355.50		
10	200 mm	Metre	1516.00	1556.00		
11	225 mm	Metre	2055.00	2105.00		
12	250 mm	Metre	2533.00	2595.00		
13	280 mm	Metre	3173.00	3250.00		
14	315 mm	Metre	4018.00	4116.00		
15	355 mm	Metre	5109.00	5234.00		
16	400 mm	Metre	6616.00	6778.00		
17	450 mm	Metre	8349.00	8553.00		
18	500 mm	Metre	10314.00	10566.50		
19	560 mm	Metre	13391.00	13707.50		
20	630 mm	Metre	16962.00	17363.00		
	PN 12.5					
1	50 mm	Metre	125.00	128.00		
2	63 mm	Metre	202.00	207.00		
3	75 mm	Metre	284.00	291.00		
4	90 mm	Metre	415.00	425.00		
5	110 mm	Metre	614.00	628.50		
6	125 mm	Metre	788.00	807.00		
7	140 mm	Metre	987.00	1010.50		
8	160 mm	Metre	1290.00	1320.50		
9	180 mm	Metre	1630.00	1669.00		
10	200 mm	Metre	2009.00	2057.00		
11	225 mm	Metre	2548.00	2608.50		
12	250 mm	Metre	3131.00	3205.50		
13	280 mm	Metre	3931.00	4024.50		
14	315 mm	Metre	4977.00	5095.50		
15	355 mm	Metre	6314.00	6464.50		

SI.	Description	Unit	F	Pate for 2018	-19 in Rupee	s
No	-		I Quarter	II Quarter	III Quarter	IV Quarter
16	400 mm	Metre	8187.00	8382.00		
17	450 mm	Metre	10429.00	10675.50		
18	500 mm	Metre	12857.00	13161.00		
19	560 mm	Metre	16112.00	16493.00		
20	630 mm	Metre	20390.00	20872.00		
	PN 16					
1	50 mm	Metre	154.00	157.50		
2	63 mm	Metre	250.00	256.00		
3	75 mm	Metre	345.00	353.50		
4	90 mm	Metre	496.00	508.00		
5	110 mm	Metre	741.00	758.50		
6	125 mm	Metre	956.00	979.00		
7	140 mm	Metre	1196.00	1224.50		
8	160 mm	Metre	1566.00	1603.50		
9	180 mm	Metre	1975.00	2022.00		
10	200 mm	Metre	2437.00	2495.00		
11	225 mm	Metre	3087.00	3160.50		
12	250 mm	Metre	3806.00	3896.50		
13	280 mm	Metre	4770.00	4883.50		
14	315 mm	Metre	6033.00	6176.50		
15	355 mm	Metre	7652.00	7834.00		
16	400 mm	Metre	9922.00	10158.00		
17	450 mm	Metre	12659.00	12958.00		
18	500 mm	Metre	15984.00	16353.00		

Note: 1) The above rates are basic rates inclusive of transportation charges to stockyard anywhere in Tamilnadu.

- 2) Unloading, stacking at stock yard and Conveyance from stock yard to site are extra
- 3) GST extra applicable as per GO

# 2.1 SPECIALS FOR HDPE PIPES AS PER IS 8360/1977/Part I (Reaffirmed 1992, Part II and III (Reaffirmed 2002)

1			Rate for 2018-19		
SI.	Description	Unit	in Rup		
No			90 Degree Bend	<b>Equal Tee</b>	
	PN 6				
1	50 mm	Each	52.00	57.00	
2	63 mm	Each	76.00	78.00	
3	75 mm	Each	105.00	135.00	
4	90 mm	Each	184.00	257.00	
5	110 mm	Each	332.00	426.00	
6	125 mm	Each	437.00	450.00	
7	140 mm	Each	602.00	618.00	
8	160 mm	Each	872.00	910.00	
9	180 mm	Each	1216.00	1294.00	
10	200 mm	Each	1648.00	1724.00	
11	225 mm	Each	2268.00	2433.00	
12	250 mm	Each	3090.00	3306.00	
13	280 mm	Each	4330.00	4596.00	
14	315 mm	Each	7295.00	6339.00	
15	355 mm	Each	10650.00	8866.00	
16	400 mm	Each	15371.00	12966.00	
17	450 mm	Each	20392.00	18408.00	
18	500 mm	Each	30111.00	31798.00	
19	560 mm	Each	39825.00	39748.00	
20	630 mm	Each	50097.00	55040.00	
	PN 8				
1	125 mm	Each	417.00	478.00	
2	140 mm	Each	556.00	653.00	
3	160 mm	Each	792.00	946.00	
4	180 mm	Each	1106.00	1319.00	
5	200 mm	Each	1433.00	1762.00	
6	225 mm	Each	2044.00	2457.00	
7	250 mm	Each	2750.00	3315.00	
8	280 mm	Each	3805.00	4581.00	
9	315 mm	Each	7907.00	6276.00	
10	355 mm	Each	11276.00	8730.00	
11	400 mm	Each	16458.00	12660.00	
12	450 mm	Each	23445.00	17880.00	
13	500 mm	Each	32157.00	32340.00	
14	560 mm	Each	45190.00	40490.00	
15	630 mm	Each	64344.00	51556.00	
	PN 10				
1	50 mm	Each	71.00	82.00	
2	63 mm	Each	117.00	121.00	
3	75 mm	Each	151.00	222.00	
4	90 mm	Each	272.00	359.00	
5	110 mm	Each	443.00	600.00	
6	125 mm	Each	608.00	837.00	
7	140 mm	Each	891.00	1154.00	
8	160 mm	Each	1259.00	1770.00	
9	180 mm	Each	1923.00	2448.00	
1 ) !					

SI. Description Unit				Rate for 2018-19 in Rupees		
No			90 Degree Bend	Equal Tee		
11	225 mm	Each	3377.00	4510.00		
12	250 mm	Each	4510.00	6090.00		
13	280 mm	Each	6253.00	8391.00		
14	315 mm	Each	10966.00	11450.00		
15	355 mm	Each	15833.00	15884.00		
16	400 mm	Each	23228.00	22926.00		
17	450 mm	Each	31196.00	30434.00		
18	500 mm	Each	41377.00	52288.00		
19	560 mm	Each	63410.00	84048.00		
20	630 mm	Each	94046.00	119783.00		
	PN 12.5					
1	125 mm	Each	613.00	817.00		
2	140 mm	Each	856.00	1152.00		
3	160 mm	Each	1225.00	1715.00		
4	180 mm	Each	1701.00	2458.00		
5	200 mm	Each	2274.00	3367.00		
6	225 mm	Each	3237.00	4431.00		
7	250 mm	Each	4134.00	6048.00		
8	280 mm	Each	5917.00	8524.00		
9	315 mm	Each	12554.00	11191.00		
10	355 mm	Each	16610.00	16011.00		
11	400 mm	Each	23452.00	21410.00		
12	450 mm	Each	34180.00	40522.00		
13	500 mm	Each	46846.00	58107.00		
14	560 mm	Each	65741.00	81576.00		
15	630 mm	Each	93627.00	116133.00		
	PN 16					
1	50 mm	Each	151.00	148.00		
2	63 mm	Each	236.00	216.00		
3	75 mm	Each	275.00	369.00		
4	90 mm	Each	423.00	564.00		
5	110 mm	Each	771.00	976.00		
6	125 mm	Each	834.00	1228.00		
7	140 mm	Each	1165.00	1728.00		
8	160 mm	Each	2022.00	2628.00		
9	180 mm	Each	2731.00	3760.00		
10	200 mm	Each	3660.00	5161.00		
11	225 mm	Each	5210.00	6788.00		
12	250 mm	Each	6661.00	9281.00		
13	280 mm	Each	9524.00	13066.00		
14	315 mm	Each	17989.00	17878.00		
15	355 mm	Each	24217.00	25591.00		
16	400 mm	Each	35881.00	44631.00		
17	450 mm	Each	50876.00	60768.00		
18	500 mm	Each	73942.00	91523.00		

Note: 1) The above rates are basic rates inclusive of transportation charges to stockyard anywhere in Tamilnadu.

#### 3.0 A.C.PRESSURE PIPES AS PER IS 1592 / 2003

SI.No	Description	Unit	Rate for 2018-19 in Rupees
ı	Class 15		
1	80mm	Metre	293.00
2	100mm	Metre	385.00
3	125mm	Metre	503.00
4	150mm	Metre	707.00
5	200mm	Metre	1171.00
6	250mm	Metre	1485.00
7	300mm	Metre	2077.00
8	350mm	Metre	2532.00
9	400mm	Metre	3590.00
10	450mm	Metre	4263.00
II	Class 20		
1	80mm	Metre	320.00
2	100mm	Metre	490.00
3	125mm	Metre	627.00
4	150mm	Metre	881.00
5	200mm	Metre	1499.00
6	250mm	Metre	1926.00
7	300mm	Metre	2706.00
8	350mm	Metre	3291.00
9	400mm	Metre	4697.00
10	450mm	Metre	5658.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

3.1 A.C. COUPLER AS PER IS 1592 /2003

SI.No	Description	Unit	Rate for 2018-19 in Rupees
ı	Class 15		
1	80mm	Each	254.00
2	100mm	Each	328.00
3	125mm	Each	413.00
4	150mm	Each	496.00
5	200mm	Each	849.00
6	250mm	Each	990.00
7	300mm	Each	1257.00
8	350mm	Each	1641.00
9	400mm	Each	2318.00
10	450mm	Each	2852.00
II	Class 20		
1	80mm	Each	270.00
2	100mm	Each	348.00
3	125mm	Each	444.00
4	150mm	Each	586.00
5	200mm	Each	911.00
6	250mm	Each	1225.00
7	300mm	Each	1587.00
8	350mm	Each	2057.00
9	400mm	Each	3066.00
10	450mm	Each	3665.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

#### 3.2 C.I.D.JOINTS AS PER IS 8794 / 1988

SI.No	Description	Unit	Rate for 2018-19 in Rupees
ı	Class 15		
1	80mm	Each	428.00
2	100mm	Each	538.00
3	125mm	Each	678.00
4	150mm	Each	868.00
5	200mm	Each	1263.00
6	250mm	Each	1644.00
7	300mm	Each	1983.00
8	350mm	Each	3336.00
9	400mm	Each	4161.00
10	450mm	Each	4997.00
II	Class 20		
1	80mm	Each	440.00
2	100mm	Each	545.00
3	125mm	Each	732.00
4	150mm	Each	881.00
5	200mm	Each	1343.00
6	250mm	Each	1770.00
7	300mm	Each	1839.00
8	350mm	Each	3550.00
9	400mm	Each	4261.00
10	450mm	Each	5033.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

### 4.0 C.I. SPUN PIPES AS PER IS 1536/2001 Amendment No.3. July 2008

SI No.	Description	Unit	Rate for 2018- 19 in Rupees
ı	LA Class		
1	80mm	Metre	952.00
2	100mm	Metre	1179.00
3	125mm	Metre	1536.00
4	150mm	Metre	1824.00
5	200mm	Metre	2637.00
6	250mm	Metre	3553.00
7	300mm	Metre	4582.00
8	350mm	Metre	5928.00
9	400mm	Metre	7214.00
10	450mm	Metre	8699.00
11	500mm	Metre	10183.00
12	600mm	Metre	13570.00
13	700mm	Metre	17416.00
14	750mm	Metre	19572.00
II	A Class		
1	80mm	Metre	1034.00
2	100mm	Metre	1298.00
3	125mm	Metre	1678.00
4	150mm	Metre	1997.00
5	200mm	Metre	2862.00
6	250mm	Metre	3869.00
7	300mm	Metre	5009.00
8	350mm	Metre	6430.00
9	400mm	Metre	7883.00
10	450mm	Metre	9556.00
11	500mm	Metre	11093.00
12	600mm	Metre	14814.00
13	700mm	Metre	18968.00
14	750mm	Metre	21306.00

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
Ш	B Class		
1	80mm	Metre	1110.00
2	100mm	Metre	1385.00
3	125mm	Metre	1807.00
4	150mm	Metre	2150.00
5	200mm	Metre	3096.00
6	250mm	Metre	4185.00
7	300mm	Metre	5428.00
8	350mm	Metre	6974.00
9	400mm	Metre	8510.00
10	450mm	Metre	10309.00
11	500mm	Metre	12002.00
12	600mm	Metre	16048.00
13	700mm	Metre	20438.00
14	750mm	Metre	23050.00

- 1) The above rates are basic rates inclusive of transportation charges to stockyard anywhere in Tamilnadu.
- 2) Unloading, stacking at stock yard and Conveyance from stock yard to site are extra.
- 3) GST extra applicable as per GO

#### 4.1 C.I D/F PIPES AS PER IS 7181/1986 & IS 1537/1996

SI. No.	Description	Unit	Rate for 2018 - 19 in Rupees
I	STANDARD		
1	80mm to 200mm	Kg	66.00
2	250mm to 400mm	Kg	68.00
3	450mm to 750mm	Kg	72.00
II	NON-STANDARD		
1	80mm to 200mm	Kg	70.00
2	250mm to 400mm	Kg	72.00
3	450mm to 750mm	Kg	76.00

#### 4.2 CI D/F SPECIALS & S/S SPECIALS AS PER IS 1538/1993

SI. No.	Description	Unit	Rate for 2018 - 19 in Rupees
ı	STANDARD		
1	80mm to 200mm	Kg	62.00
2	250mm to 400mm	Kg	72.00
3	450mm to 750mm	Kg	78.00
II.	NON-STANDARD		
1	80mm to 200mm	Kg	66.00
2	250mm to 400mm	Kg	78.00
3	450mm to 750mm	Kg	81.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

#### 5.0 G I PIPES (MEDIUM) AS PER IS 1239/PART I/2004

SI. No.	Description	Unit	Rate for 2018 - 19 in Rupees
1	15mm	Metre	95.00
2	20mm	Metre	126.00
3	25mm	Metre	183.00
4	32mm	Metre	230.00
5	40mm	Metre	267.00
6	50mm	Metre	364.00
7	65mm	Metre	465.00
8	80mm	Metre	575.00
9	100mm	Metre	820.00
10	125mm	Metre	1178.00
11	150mm	Metre	1318.00

- 1) The above rates are basic rates inclusive of transportation charges to stockyard anywhere in Tamilnadu.
- 2) Unloading, stacking at stock yard and Conveyance from stock yard to site are extra.
- 3) GST extra applicable as per GO

5.1a G.I. SPECIALS AS PER IS 1239/PART II

SI.No.	Description	Unit	Rates for 2018-19 in Rupees
	GI REDUCER (HEAVY)		
1	150 mm x 125 mm	Each	770.00
2	150 mm x 100 mm	Each	770.00
3	150 mm x 80 mm	Each	770.00
4	125 mm x 100 mm	Each	693.00
5	125 mm x 80 mm	Each	693.00
6	125 mm x 65 mm	Each	693.00
7	125 mm x 50 mm	Each	693.00
8	100 mm x 80 mm	Each	478.00
9	100 mm x 65 mm	Each	478.00
10	100 mm x 50 mm	Each	478.00
11	80 mm x 65 mm	Each	298.00
12	80 mm x 50 mm	Each	298.00
13	80 mm x 40 mm	Each	298.00
14	80 mm x 32 mm	Each	298.00
15	65 mm x 50 mm	Each	205.00
16	65 mm x 40 mm	Each	205.00
17	65 mm x 32 mm	Each	205.00
18	65 mm x 20 mm	Each	205.00
19	50 mm x 40 mm	Each	112.00
20	50 mm x 32 mm	Each	112.00
21	50 mm x 20 mm	Each	112.00
22	40 mm x 32 mm	Each	78.00
23	40 mm x 20 mm	Each	78.00
	GI REDUCER (MEDIUM)		
1	150 mm x 125 mm	Each	626.00
2	150 mm x 100 mm	Each	626.00
3	150 mm x 80 mm	Each	626.00
4	125 mm x 100 mm	Each	529.00
5	125 mm x 80 mm	Each	529.00
6	125 mm x 65 mm	Each	529.00
7	125 mm x 50 mm	Each	529.00
8	100 mm x 80 mm	Each	345.00
9	100 mm x 65mm	Each	345.00
10	100 mm x 50 mm	Each	345.00
11	80 mm x 65 mm	Each	192.00
12	80 mm x 50 mm	Each	150.00

SI.No.	Description	Unit	Rates for 2018-19 in Rupees
13	80 mm x 40 mm	Each	150.00
14	80 mm x 32 mm	Each	150.00
15	65 mm x 50 mm	Each	108.00
16	65 mm x 40 mm	Each	108.00
17	65 mm x 32 mm	Each	108.00
18	65 mm x 20 mm	Each	108.00
19	50 mm x 40 mm	Each	72.00
20	50 mm x 32 mm	Each	72.00
21	50 mm x 20 mm	Each	72.00
22	40 mm x 32 mm	Each	47.00
23	40 mm x 20 mm	Each	47.00
	G I UNEQUAL TEE (HEAVY)		
1	150 mm x 125 mm	Each	1643.00
2	150 mm x 100 mm	Each	1643.00
3	150 mm x 80 mm	Each	1643.00
4	125 mm x 100 mm	Each	1336.00
5	125 mm x 80 mm	Each	1336.00
6	125 mm x 65 mm	Each	1336.00
7	125 mm x 50 mm	Each	1336.00
8	100 mm x 80 mm	Each	927.00
9	100 mm x 65mm	Each	927.00
10	100 mm x 50 mm	Each	927.00
11	80 mm x 65 mm	Each	541.00
12	80 mm x 50 mm	Each	541.00
13	80 mm x 40 mm	Each	541.00
14	80 mm x 32 mm	Each	541.00
15	65 mm x 50 mm	Each	398.00
16	65 mm x 40 mm	Each	398.00
17	65 mm x 32 mm	Each	398.00
18	65 mm x 20 mm	Each	398.00
19	50 mm x 40 mm	Each	236.00
20	50 mm x 32 mm	Each	236.00
21	50 mm x 20 mm	Each	236.00
22	40 mm x 32 mm	Each	149.00
23	40 mm x 20 mm	Each	149.00
24	32 mm x 20 mm	Each	107.00

SI.No.	Description	Unit	Rates for 2018-19 in Rupees
	G.I UNEQUAL TEE(MEDIUM)		
1	150 mm x 125 mm	Each	986.00
2	150 mm x 100 mm	Each	986.00
3	150 mm x 80 mm	Each	986.00
4	125 mm x 100 mm	Each	800.00
5	125 mm x 80 mm	Each	800.00
6	125 mm x 65 mm	Each	800.00
7	125 mm x 50 mm	Each	800.00
8	100 mm x 80 mm	Each	526.00
9	100 mm x 65mm	Each	526.00
10	100 mm x 50 mm	Each	526.00
11	80 mm x 65 mm	Each	259.00
12	80 mm x 50 mm	Each	259.00
13	80 mm x 40 mm	Each	259.00
14	80 mm x 32 mm	Each	259.00
15	65 mm x 50 mm	Each	183.00
16	65 mm x 40 mm	Each	183.00
17	65 mm x 32 mm	Each	183.00
18	65 mm x 20 mm	Each	183.00
19	50 mm x 40 mm	Each	108.00
20	50 mm x 32 mm	Each	108.00
21	50 mm x 20 mm	Each	108.00
22	40 mm x 32 mm	Each	78.00
23	40 mm x 20 mm	Each	78.00
24	32 mm x 20 mm	Each	78.00
	MS BOLTS AND NUTS		
1	16 mm dia x 65 to 90 mm		
	length fully threaded bolts		
	and nuts with 2 Nos.	Kg.	93.00
2	20mm dia and above x 90mm		
	to 120mm length fully threaded		
	bolts and with nuts 2 Nos.	Kg.	98.00
	RUBBER INSERTION SHEET		
1	3 Ply R.I. Sheet	Kg.	82.00
	AC COWL		
1	80 mm dia	Each	29.00
2	100 mm dia	Each	50.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

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5.1b G.I. SPECIALS AS PER IS 1239/PART II

<u>s</u>	Docorintion					Rate	Rate for 2018-19	1	in Rupees			
Š.		15mm	20mm	25mm	32mm	40mm	50mm	e5mm	80mm	100mm	125mm	150mm
<del>-</del>	G.I. Equal Elbow plain	22.00	30.00	47.00	78.00	98.00	148.00	265.00	390.00	697.00	719.00	1724.00
2.	G.I. Equal Tee plain	35.00	43.00	62.00	90.00	132.00	218.00	344.00	488.00	873.00	1258.00	1761.00
3.	G.I. Coupling	21.00	21.00	28.00	51.00	78.00	114.00	197.00	242.00	484.00	729.00	1470.00
4.	G.I. Flange set	-	Ι	Ι	Ι	Ι	70.00	85.00	98.00	162.00	236.00	837.00
5.	G.I. Cross	51.00	65.00	106.00	171.00	219.00	332.00	513.00	811.00	1067.00	1345.00	I
9.	G.I. Hex Nipple	21.00	37.00	37.00	58.00	72.00	100.00	171.00	240.00	356.00	380.00	819.00
7.	G.I.Three Way Elbow	45.00	69.00	101.00	160.00	208.00	334.00	Ι	Ι	Ι	1	1
∞.	G.I.Plug Dia Head Taper Thread	00'6	20.00	20.00	34.00	34.00	62.00	84.00	122.00	171.00	226.00	I
9.	G.I.Bend	21.00	37.00	58.00	00'69	90.00	135.00	229.00	347.00	00'809	879.00	2079.00
10.	G.I.Union	61.00	65.00	109.00	154.00	196.00	278.00	521.00	727.00	1079.00	1443.00	2145.00
11.	G.M. Ferrule	337.00	507.00	747.00	Ι	I	Ι	Ι	I	I	I	I
12.	G.I.stop cock	161.00	215.00	390.00	582.00	865.00	1251.00	1596.00	2107.00	3229.00	4620.00	I
13.	Rubber sheet for Flange set		1	1	Ι	Ι	14.00	14.00	20.00	39.00	41.00	93.00
14.	G.I. Reduced Elbow Plain	28.00	32.00	54.00	85.00	111.00	163.00	285.00	434.00	748.00	1078.00	1455.00
15.	G.I.Reduced Tee Plain	39.00	53.00	79.00	114.00	145.00	219.00	337.00	521.00	982.00	1386.00	1655.00
16.	G.I. Reduced Socket Plain	22.00	45.00	49.00	00.69	105.00	150.00	192.00	296.00	417.00	539.00	779.00
17.	G.I. Check Nut	14.00	20.00	27.00	40.00	53.00	71.00	118.00	156.00	208.00	263.00	759.00
18.	G.I.Reduced Nipple	21.00	24.00	44.00	84.00	100.00	152.00	284.00	329.00	462.00	655.00	819.00
19.	G.I. Dummy (Heavy)	I	1	1	I	22.00	35.00	44.00	58.00	101.00	146.00	I
20.	G.I.Dummy (Medium)	1	I	I	I	20.00	29.00	40.00	49.00	93.00	144.00	I
21.	M.S.Saddle Piece	I	1	I	I	I	85.00	90.00	108.00	144.00	185.00	570.00
22.	Waste Not Tap	-	122.00	I	Ι	_	-	_	-	Ι	-	I
23.	C.I.Footvalve with stainer	I	I	l	Ι	Ι	380.00	-	565.00	Ι	-	1
24.	M.S.Clampset	ı	Ι	Ι	Τ	169.00	196.00	336.00	471.00	260.00	Ι	821.00

The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu. 1) Note :

GST extra applicable as per GO

5.2 G.M GATE VALVES AS PER IS BS 5154 and related IS Specs

2	3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				&   	ate for 2	2018-19	Rate for 2018-19 in Rupees	es		
9.160	Description	15mm	20mm	20mm 25mm	32mm	32mm 40mm	50mm	65mm	80mm	80mm 100mm 125mm	125mm
1	G.M. Gate valves	_	470.00	470.00 631.00	838.00	1132.00	1818.00	2838.00	4464.00	838.00 1132.00 1818.00 2838.00 4464.00 7649.00 10883.00	10883.00
2	G.M. Non Return valves	I	I	I	I	I	1818.00	1818.00 1862.00 2920.00	2920.00	ı	I

The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu. GST extra applicable as per GO 7 Note :

## 6.0 DUCTILE IRON SOCKET/SPIGOT PIPES FOR CLASS K7 AS PER IS 8329/2000

SI. No.	Description	Unit	Rate for 2018 - 19 in Rupees
1	100 mm	Metre	1019.00
2	150 mm	Metre	1475.00
3	200 mm	Metre	1904.00
4	250 mm	Metre	2505.00
5	300 mm	Metre	3160.00
6	350mm	Metre	3884.00
7	400 mm	Metre	4664.00
8	450 mm	Metre	5513.00
9	500 mm	Metre	6494.00
10	600 mm	Metre	8563.00
11	700 mm	Metre	11179.00
12	750 mm	Metre	12833.00
13	800 mm	Metre	14358.00
14	900 mm	Metre	17433.00
15	1000 mm	Metre	21795.00

- 1) The above rates are basic rates inclusive of transportation charges to stockyard anywhere in Tamilnadu.
- 2) Unloading, stacking at stock yard and Conveyance from stock yard to site are extra.
- 3) GST extra applicable as per GO.

## 6.1 DUCTILE IRON SOCKET/SPIGOT PIPES FOR CLASS K9 AS PER IS 8329/2000

SI. No.	Description	Unit	Rate for 2018 - 19 in Rupees
1	100 mm	Metre	1155.00
2	150 mm	Metre	1697.00
3	200 mm	Metre	2290.00
4	250 mm	Metre	3016.00
5	300 mm	Metre	3808.00
6	350mm	Metre	4647.00
7	400 mm	Metre	5577.00
8	450 mm	Metre	6705.00
9	500 mm	Metre	7752.00
10	600 mm	Metre	10266.00
11	700 mm	Metre	12597.00
12	750 mm	Metre	14125.00
13	800 mm	Metre	15660.00
14	900 mm	Metre	18930.00
15	1000 mm	Metre	22688.00

- 1) The above rates are basic rates inclusive of transportation charges to stockyard anywhere in Tamilnadu.
- 2) Unloading, stacking at stock yard and Conveyance from stock yard to site are extra.
- 3) GST extra applicable as per GO.

# 6.2 DUCTILE IRON CLASS PN10 FLANGED PIPES AS PER IS 8329/2000

SI. No.	Description	Unit	Rate for 2018 - 19 in Rupees
ı	4 m length of pipes		
1	80 mm	Each	5661.00
2	100 mm	Each	6575.00
3	150 mm	Each	9166.00
4	200 mm	Each	12332.00
5	250 mm	Each	16621.00
6	300 mm	Each	21285.00
7	350mm	Each	28968.00
8	400 mm	Each	37006.00
9	450 mm	Each	44715.00
10	500 mm	Each	51395.00
11	600 mm	Each	66655.00
12	700 mm	Each	89851.00
13	750 mm	Each	102859.00
14	800 mm	Each	115868.00
15	900 mm	Each	157666.00
16	1000mm	Each	185154.00
Ш	5 m length of pipes		
1	80 mm	Each	6565.00
2	100 mm	Each	8603.00
3	150 mm	Each	12529.00
4	200 mm	Each	16557.00
5	250 mm	Each	22490.00
6	300 mm	Each	28734.00
7	350 mm	Each	34685.00
8	400 mm	Each	43663.00
9	450 mm	Each	52626.00
10	500 mm	Each	60642.00
11	600 mm	Each	79504.00
12	700 mm	Each	100542.00
13	750 mm	Each	114674.00
14	800 mm	Each	128452.00
15	900 mm	Each	174672.00
16	1000 mm	Each	201614.00

- 1) The above rates are basic rates inclusive of transportation charges to stockyard anywhere in Tamilnadu.
- 2) Unloading, stacking at stock yard and Conveyance from stock yard to site are extra.
- 3) GST extra applicable as per GO.

#### 6.3 DUCTILE IRON SPECIALS AS PER IS 9523/2000

SI.No.	Description	Unit	Rates for 2018-19 in Rupees
	ALL SOCKET		
1	100mm - 200 mm dia	Kg	119.00
2	250 mm - 300 mm dia	Kg	119.00
3	350 mm - 450 mm dia	Kg	119.00
4	500 mm - 600 mm dia	Kg	119.00
5	700 mm - 750 mm	Kg	173.00
6	800mm	Kg	173.00
7	900 mm	Kg	183.00
8	1000 mm	Kg	198.00
	ALL FLANGE		
1	100mm - 200 mm dia	Kg	124.00
2	250 mm - 300 mm dia	Kg	124.00
3	350 mm - 450 mm dia	Kg	124.00
4	500 mm - 600 mm dia	Kg	124.00
5	700 mm - 750 mm	Kg	183.00
6	800 mm	Kg	183.00
7	900 mm	Kg	198.00
8	1000 mm	Kg	198.00

- 1) The above rates are basic rates inclusive of transportation charges to stockyard anywhere in Tamilnadu.
- 2) GST extra applicable as per GO.
- 3) In respect of flanged and spigot, flanged and socketted type specials, the rate applicable for flanged type specials is allowed.

#### 7.0 HOUSE SERVICE CONNECTION IN WSS.

SI.No	Description	ı	Unit	Rate for 2018-19 in Rupees.
1	<b>HSC Connection in HDPE Mains for Water</b>			
	Supply Scheme			
	Electrofusion tapping saddle PE 80 blue, PN 12.5			
	with female threaded metal insert of SS 304 as			
	per standards BS EN 12201 tested as per BS			
	6920 for drinking water in WRC-NSF ltd, UK. (Non			
	Wrap with top loading type). Sizes:63mm to			
	315mm dia distribution HDPE pipes.			
	20mm (1/2")	1	No.	489.00
	25mm (3/4")	1	No.	489.00
	32mm (1")	1	No.	489.00
2	HSC Connection in DI Mains for Water Supply		· ·	
	Scheme			
	Providing suitable dia non corrosive engineering			
	plastic moulded Clamp Saddle with SS 304			
	threaded metal inserted for tapping outlet suiting			
	for $\frac{1}{2}$ ", $\frac{3}{4}$ " &1" clear bore and with wide plastic			
	strap (Engineering Plastic) with SS 304 suitable			
	bolts & nuts. Saddle to have sealing of Thermo			
	plastic elastomeric (TPE) material around shall			
	as detailed in a drawing furnished.			
	20mm (1/2")	1	No.	629.00
	25mm (3/4")	1	No.	723.00
	32mm (1")	1	No.	748.00
3	Common I tems for HSC Connection			
i	Brass Ferrule as per IS 319 grade of sizes 15mm,			
	20mm and 25mm size and threaded as per IS:1554			
	BSPT, ISO:7-1 to suit the corresponding bore			
	sizes of 15mm, 20mm and 25mm dia size			
	(1/2", 3/4" and $1")$ in the saddle Connection, as			
	per IS:1554 BSPT, ISO:7-1			
	15mm (1/2")	1	No.	128.00
	20mm (3/4")	1	No.	213.00
	25mm (1")	1	No.	272.00
ii	Poly Propylene compression Female Threaded			
	Adaptor with metal insert of SS 304 as per			
	standards ISO 14236 and Tested as per BS 6920			
	in WRC-NSF LTD, UK for connecting 15mm, 20mm			
	and 25mm outlet points of Brass ferrule of sizes			
	15mm, 20mm and 25mm respectively.			

SI.No	Description	Unit	Rate for 2018-19 in Rupees
	20mm (1/2")	1 No.	106.00
	25mm (3/4")	1 No.	136.00
	32mm (1")	1 No.	162.00
iii	Poly propylene 90 Degree Compression elbow with		
	compression joint at both ends as per standards		
	ISO 14236 and Tested as per BS 6920 in WRC-		
	NSF LTD, UK suitable for 20mm, 25mm and 32mm		
	OD MDPE pipes		
	20mm (1/2")	1 No.	60.00
	25mm (3/4")	1 No.	77.00
	32mm (1")	1 No.	123.00
iv	Poly Propylene compression Female Threaded		
	Elbow with metal insert of SS 304 as per		
	standards ISO 14236 and Tested as per BS 6920		
	in WRC-NSF LTD, UK suitable for 20mm, 25mm		
	and 32mm OD MDPE pipes		
	20mm (1/2")	1 No.	106.00
	25mm (3/4")	1 No.	136.00
	32mm (1")	1 No.	162.00
V	Poly Propylene compression Male Threaded		
	Adaptor with metal insert of SS 304 as per		
	standards ISO 14236 and Tested as per BS 6920		
	in WRC-NSF LTD, UK suitable for 20mm, 25mm		
	and 32mm OD MDPE pipes		
	20mm (1/2")	1 No.	102.00
	25mm (3/4")	1 No.	133.00
	32mm (1")	1 No.	162.00
vi	MDPE PE 80 PN16 Blue pipe as per standards		
	ISO 4427 and Tested as per BS 6920 in WRC-		
	NSF LTD, UK		
	20mm (1/2")	1M	17.00
∨ii	MDPE PE 80 PN12.5 Blue pipe as per standards		
	ISO 4427 and Tested as per BS 6920 in WRC-		
	NSF LTD, UK, suitable for 20mm, 25mm and 32mm		
	OD MDPE pipes		
	25mm (3/4")	1M	24.00
	32mm (1")	1M	26.00
Viii	U PVC ball valve with one side compression end and other side female end as per ISO 4422-4		
	and Tested as per BS 6920 in WRC-NSF LTD,		
	UK,size: 20mm ODx1/2"ID, 25mm ODX1/2"ID and		
	32mm OD X 3/4" ID		

SI.No	Description	Unit	Rate for 2018-19 in Rupees
	20mm (1/2")	1 No.	106.00
	25mm (3/4")	1 No.	136.00
	32mm (1")	1 No.	162.00
ix	Supply and delivery of protection box of size 20cm x 30cm for fixing of Water Meter. The box should be rectangular base in construction and material of construction should be weather resistant polyethylene (PE) blue /block .Reinforcement rips should be provided at the walls of the box. Box should be at two components comprising body and lid. Lid should be press fitted to the body. No hinges should be used for opened /closed. Operation meter box should be provided with built in lock. The body as inlet and outlet windows to pass the pipe through suitable for use with pipes of sizes up to 1" .Base of the box should be designed in such a way that the box can be installed to the floor/wall using anchor Bolts / screws without grouting the entire base of the meter Box. Provision for fixing Name plate showing the name of the Department etc., complete and as directed by the TWAD Board Officers.	1 No.	391.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
2) GST extra applicable as per GO

#### 8.0 BAR WRAPPED STEEL CYLINDER PIPES AS PER IS 15155 - 2002

SI.No.	Description	Unit	Rates for 2018-19 in Rupees
	4 Ksc Pipe		
1	350mm	Metre	3284.00
2	400mm	Metre	3608.00
3	450mm	Metre	4097.00
4	500mm	Metre	4451.00
5	600mm	Metre	5860.00
6	700mm	Metre	7132.00
7	800mm	Metre	8552.00
8	900mm	Metre	10524.00
9	1000mm	Metre	12194.00
10	1100mm	Metre	15915.00
11	1200mm	Metre	17357.00
12	1300mm	Metre	21959.00
13	1400mm	Metre	24364.00
14	1500mm	Metre	25498.00
	6 Ksc Pipe		
1	350mm	Metre	3289.00
2	400mm	Metre	3619.00
3	450mm	Metre	4113.00
4	500mm	Metre	4461.00
5	600mm	Metre	5871.00
6	700mm	Metre	7132.00
7	800mm	Metre	8571.00
8	900mm	Metre	10562.00
9	1000mm	Metre	12212.00
10	1100mm	Metre	15915.00
11	1200mm	Metre	17796.00
12	1300mm	Metre	21981.00
13	1400mm	Metre	24431.00
14	1500mm	Metre	25518.00
	8 Ksc Pipe		
1	350mm	Metre	3292.00
2	400mm	Metre	3639.00
3	450mm	Metre	4131.00
4	500mm	Metre	4473.00
5	600mm	Metre	5871.00
6	700mm	Metre	7132.00

SI.No.	Description	Unit	Rates for 2018-19 in Rupees
7	800mm	Metre	8571.00
8	900mm	Metre	10602.00
9	1000mm	Metre	12469.00
10	1100mm	Metre	15915.00
11	1200mm	Metre	17357.00
12	1300mm	Metre	22009.00
13	1400mm	Metre	24498.00
14	1500mm	Metre	25540.00
	10 Ksc Pipe		
1	350mm	Metre	3294.00
2	400mm	Metre	3665.00
3	450mm	Metre	4153.00
4	500mm	Metre	4485.00
5	600mm	Metre	5871.00
6	700mm	Metre	7132.00
7	800mm	Metre	8571.00
8	900mm	Metre	10643.00
9	1000mm	Metre	12500.00
10	1100mm	Metre	15915.00
11	1200mm	Metre	17357.00
12	1300mm	Metre	22038.00
13	1400mm	Metre	24612.00
14	1500mm	Metre	25565.00
	12 Ksc Pipe		
1	350mm	Metre	3297.00
2	400mm	Metre	3692.00
3	450mm	Metre	4179.00
4	500mm	Metre	4500.00
5	600mm	Metre	5871.00
6	700mm	Metre	7140.00
7	800mm	Metre	8616.00
8	900mm	Metre	10698.00
9	1000mm	Metre	12613.00
10	1100mm	Metre	15915.00
11	1200mm	Metre	17464.00
12	1300mm	Metre	22066.00
13	1400mm	Metre	24714.00
14	1500mm	Metre	25602.00

SI.No.	Description	Unit	Rates for 2018-19 in Rupees
	14 Ksc Pipe		
1	350mm	Metre	3300.00
2	400mm	Metre	3714.00
3	450mm	Metre	4211.00
4	500mm	Metre	4530.00
5	600mm	Metre	5984.00
6	700mm	Metre	7525.00
7	800mm	Metre	9348.00
8	900mm	Metre	11269.00
9	1000mm	Metre	13391.00
10	1100mm	Metre	16230.00
11	1200mm	Metre	18459.00
12	1300mm	Metre	22094.00
13	1400mm	Metre	26082.00
14	1500mm	Metre	27597.00
	16 Ksc Pipe		
1	350mm	Metre	3305.00
2	400mm	Metre	3739.00
3	450mm	Metre	4246.00
4	500mm	Metre	4985.00
5	600mm	Metre	6386.00
6	700mm	Metre	8019.00
7	800mm	Metre	10135.00
8	900mm	Metre	12246.00
9	1000mm	Metre	13991.00
10	1100mm	Metre	17511.00
11	1200mm	Metre	19474.00
12	1300mm	Metre	24778.00
13	1400mm	Metre	27040.00
14	1500mm	Metre	31872.00
	18 Ksc Pipe		
1	350mm	Metre	3310.00
2	400mm	Metre	3779.00
3	450mm	Metre	4310.00
4	500mm	Metre	5169.00
5	600mm	Metre	6687.00
6	700mm	Metre	8397.00

SI.No.	Description	Unit	Rates for 2018-19 in Rupees
7	800mm	Metre	10588.00
8	900mm	Metre	13118.00
9	1000mm	Metre	15824.00
10	1100mm	Metre	18132.00
11	1200mm	Metre	22061.00
12	1300mm	Metre	26199.00
13	1400mm	Metre	29645.00
14	1500mm	Metre	31972.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

## 9.0 PIPES FOR UGSS

SI.No	Description	Unit	Rate for 2018-19 in Rupees.
1	Supply and Delivery of DWC Structured Wall		
	Polyethylene Piping Systems (Pipe with online/		
	offline coupler and elastomeric sealing ring)		
	with required specials non-smooth external		
	annular corrugated and smooth internal surface		
	(Double wall) (SN 8 Class) for non-pressure		
	underground sewerage, drainage application		
	generally as per IS-16098 (Part-2) type B.		
а	150mm ID SN 8 pipe	Per M	251.00
b	200mm ID SN 8 pipe	Per M	354.00
С	250mm ID SN 8 pipe	Per M	605.00
d	300mm ID SN 8 pipe	Per M	876.00
2	Supply and delivery of HDPE pipes for sewerage		
	PE 100 PN 6 conforming to IS: 14333/1996		
	(Amended in 2009)		
а	355 mm/ PN.6/HDPE Pipe 'ISI'(PE 100 Grade)	Per M	3511.00
b	400 mm/ PN.6/HDPE Pipe 'ISI'(PE 100 Grade)	Per M	4562.00
С	450 mm/ PN.6/HDPE Pipe 'ISI'(PE 100 Grade)	Per M	5762.00
d	500 mm/ PN.6/HDPE Pipe 'ISI'(PE 100 Grade)	Per M	7121.00
е	560 mm/ PN.6/HDPE Pipe 'ISI'(PE 100 Grade)	Per M	8901.00
f	630 mm/ PN.6/HDPE Pipe 'ISI'(PE 100 Grade)	Per M	11272.00
g	710 mm/ PN.6/HDPE Pipe 'ISI'(PE 100 Grade)	Per M	14306.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

# 10.0 M.S. PIPES- SPIRAL/LONGITUDIDNAL WELDING AS PER IS 3589/2001 WITH INTERNAL LINING AND EXTERNAL COATING MADE WITH FE410

- Supply and Delivery of MS pipes of preferred dimensions ranging from 168.30mm OD to 2540mm OD having 2.6mm to 25mm thickness as per Table-5 of IS 3589/2001 fabricated with Fe410 grade steel conforming to IS 3589:2001 and other allied codes.
- Pipes shall be internally lined with plant applied cement mortar lining 1:2, The Lining thickness range from 6 mm to 12 mm for 168.3 mm OD to 2540 mm OD as per Table -8 of IS 3589:2001
- Pipes shall be externally coated with plant applied CM 1:3, 20mm thick minimum including reinforcement as per clause A-9 of Annex-A of IS 3589:2001
- 4 Pipes shall be internally lined with plant applied Food Grade Liquid epoxy coating of minimum dry film thickness (DFT)of 406 microns as per Annex -B ,Clause- 1.2 of IS 3589:2001
- Pipes shall be externally coated with plant applied Food grade liquid Epoxy coating of 406 microns dry film minimum thickness (DFT)as per Annex B of IS 3589:2001
- Pipes shall be externally coated double coating & double wrapping minimum 4mm thick per metre with plant applied coal Tar as per clause 6.1 of IS 10221:2008 recommendations.
- 7 External polyethylene sheathing as per IS recommendations.

				Rate	for 2018	-19 in Ru	pees		
SI. No.	Dia metre & thickness of pipe in mm	Bare pipe per metre	CML Internal 6mm to 12mm thick per metre	CMC external 20mm thick per metre	Internal food grade epoxy coating 406 micr.per metre	External epoxy Coating 406 micr. per metre	CTE external double coating & double wrapping minimum 4mm thick per metre	External Polyethy- Iene Sheeting per metre	Transpo- ration any where in Tamil- nadu per metre
1	168.3X2.6	571.00	320.00	525.00	544.00	690.00	600.00	751.00	310.00
2	168.3X3.2	700.00	320.00	525.00	544.00	690.00	600.00	751.00	310.00
3	168.3X4	873.00	320.00	525.00	544.00	690.00	600.00	751.00	310.00
4	168.3X4.5	981.00	320.00	525.00	544.00	690.00	600.00	751.00	310.00
5	219.1X2.6	749.00	433.00	699.00	705.00	900.00	780.00	980.00	310.00
6	219.1X3.6	1029.00	433.00	699.00	705.00	900.00	780.00	980.00	310.00
7	219.1X4.5	1238.00	433.00	699.00	705.00	900.00	780.00	980.00	310.00
8	219.1X6.3	1714.00	433.00	699.00	705.00	900.00	780.00	980.00	310.00
9	273X3.6	1288.00	539.00	851.00	878.00	1100.00	1000.00	1248.00	310.00
10	273X4	1430.00	539.00	851.00	878.00	1100.00	1000.00	1248.00	310.00
11	273X5	1762.00	539.00	851.00	878.00	1100.00	1000.00	1248.00	310.00
12	273X6.3	2143.00	539.00	851.00	878.00	1100.00	1000.00	1248.00	310.00
13	323.9X4	1698.00	641.00	980.00	1050.00	1298.00	1193.00	1483.00	310.00
14	323.9X4.5	1761.00	641.00	980.00	1050.00	1298.00	1193.00	1483.00	310.00

SI. No.	Dia metre & thickness of pipe in mm	Bare pipe per metre	CML Internal 6mm to 12mm thick per metre	CMC external 20mm thick per metre	Internal food grade epoxy coating 406 micr.per metre	External epoxy Coating 406 micr. per metre	& double	External Polyethy- Iene Sheeting per metre	Transpo- ration any where in Tamil- nadu per metre
15	323.9X5.6	2238.00	641.00	980.00	1050.00	1298.00	1193.00	1483.00	310.00
16	323.9X7.1	2952.00	641.00	980.00	1050.00	1298.00	1193.00	1483.00	310.00
17	355.6X4	1809.00	700.00	1090.00	1050.00	1390.00	1259.00	1600.00	310.00
18	355.6X5	2286.00	700.00	1090.00	1050.00	1390.00	1259.00	1600.00	310.00
19	355.6X5.6	2571.00	700.00	1090.00	1050.00	1390.00	1259.00	1600.00	310.00
20	355.6X8	3524.00	700.00	1090.00	1050.00	1390.00	1259.00	1600.00	310.00
21	406.4X4	2048.00	807.00	1236.00	1329.00	1600.00	1363.00	1800.00	330.00
22	406.4X5	2381.00	807.00	1236.00	1329.00	1600.00	1363.00	1800.00	330.00
23	406.4X6.3	3238.00	807.00	1236.00	1329.00	1600.00	1363.00	1800.00	330.00
24	406.4X8.8	4476.00	807.00	1236.00	1329.00	1600.00	1363.00	1800.00	330.00
25	457X4	2381.00	900.00	1261.00	1329.00	1850.00	1256.00	1854.00	330.00
26	457X5	2952.00	900.00	1261.00	1329.00	1850.00	1256.00	1898.00	330.00
27	457X6.3	3572.00	900.00	1261.00	1329.00	1850.00	1256.00	1898.00	330.00
28	457X10	5714.00	900.00	1261.00	1329.00	1850.00	1256.00	1898.00	330.00
29	508X5	3286.00	950.00	1350.00	1446.00	1927.00	1395.00	1953.00	395.00
30	508X5.6	3619.00	950.00	1350.00	1446.00	1927.00	1395.00	1953.00	395.00
31	508X6.3	4048.00	950.00	1350.00	1446.00	1927.00	1395.00	1953.00	395.00
32	508X11	6952.00	950.00	1350.00	1446.00	1927.00	1395.00	1953.00	395.00
33	610X5.8	4524.00	1151.00	1600.00	1651.00	2400.00	1643.00	2600.00	495.00
34	610X6.3	5000.00	1151.00	1600.00	1651.00	2400.00	1643.00	2600.00	495.00
35	610X12.5	9523.00	1151.00	1600.00	1651.00	2400.00	1643.00	2600.00	495.00
36	711X6.3	5619.00	1401.00	1899.00	1952.00	2583.00	1923.00	3000.00	495.00
37	711X7.1	6380.00	1401.00	1899.00	1952.00	2730.00	1923.00	3000.00	495.00
38	711X14.2	12856.00	1401.00	1899.00	1952.00	2750.00	1923.00	3000.00	495.00
39	813X7.1	6476.00	1600.00	2150.00	2250.00	2966.00	2051.00	3400.00	658.00
40	813X8	8786.00	1600.00	2150.00	2250.00	3231.00	2051.00	3400.00	658.00
41	813X18	19046.00	1600.00	2150.00	2250.00	3251.00	2051.00	3400.00	658.00
42	914X8	9047.00	1700.00	2300.00	2451.00	3399.00	2400.00	3900.00	956.00
43	914X8.8	9999.00	1700.00	2300.00	2451.00	3500.00	2400.00	3900.00	956.00
44	914X10	11285.00	1700.00	2300.00	2451.00	3500.00	2400.00	3900.00	956.00

SI. No.	Dia metre & thickness of pipe in mm	Bare pipe per metre	CML Internal 6mm to 12mm thick per metre	CMC external 20mm thick per metre	Internal food grade epoxy coating 406 micr.per metre	per metre	CTE external double coating & double wrapping minimum 4mm thick per metre	per metre	Transpo- ration any where in Tamil- nadu per metre
45	914X17.5	19522.00	1700.00	2300.00	2451.00	3500.00	2400.00	3900.00	956.00
46	1016X8.8	11237.00	1899.00	2700.00	2900.00	3761.00	2793.00	4725.00	1800.00
47	1016X10	12856.00	1899.00	2700.00	2900.00	3999.00	2793.00	4725.00	1800.00
48	1016X20	24760.00	1899.00	2700.00	2900.00	3999.00	2793.00	4725.00	1800.00
49	1067X8.8	11713.00	1952.00	2750.00	2904.00	4099.00	2851.00	4881.00	1800.00
50	1067X10	13332.00	1952.00	2750.00	2904.00	4099.00	2851.00	4881.00	1800.00
51	1067X11	14475.00	1952.00	2750.00	2904.00	4099.00	2851.00	4881.00	1800.00
52	1118X8.8	12250.00	2100.00	2799.00	3000.00	4247.00	2910.00	5000.00	1800.00
53	1118X10	13808.00	2100.00	2799.00	3000.00	4247.00	2910.00	5000.00	1800.00
54	1118X11	14570.00	2100.00	2799.00	3000.00	4247.00	2910.00	5000.00	1800.00
55	1219X10	15094.00	2350.00	2900.00	3100.00	4472.00	3288.00	5200.00	1912.00
56	1219X11	16665.00	2350.00	2710.00	3100.00	4472.00	3288.00	5200.00	1912.00
57	1219X12.5	19046.00	2350.00	2710.00	3100.00	4472.00	3288.00	5200.00	1912.00
58	1422X12.5	22046.00	2600.00	3599.00	3505.00	5500.00	3599.00	6000.00	1912.00
59	1422X14.2	25236.00	2600.00	3599.00	4201.00	5500.00	3599.00	6000.00	1912.00
60	1626X14.2	28664.00	3100.00	4099.00	4300.00	6299.00	4469.00	6999.00	2249.00
61	1626X16	32854.00	3100.00	4099.00	4300.00	6299.00	4469.00	6999.00	2249.00
62	1829X14.2	32854.00	3187.00	4600.00	4700.00	6999.00	4600.00	7999.00	2361.00
63	1829X16	36759.00	3187.00	4600.00	4700.00	6999.00	4600.00	7476.00	2361.00
64	1829X17.5	40197.00	3187.00	4600.00	4700.00	6999.00	4600.00	7999.00	2361.00
65	2032X16	40949.00	3751.00	5200.00	5500.00	7799.00	5200.00	8597.00	2583.00
66	2032X17.5	44377.00	3751.00	5200.00	5500.00	7799.00	5200.00	8699.00	2812.00
67	2032X20	50091.00	3751.00	5200.00	5500.00	7799.00	5200.00	8699.00	2812.00
68	2235X17.5	49520.00	4201.00	5700.00	6000.00	8501.00	5700.00	9349.00	2842.00
69	2235X20	57138.00	4201.00	5700.00	6000.00	8501.00	5700.00	9499.00	2842.00
70	2235X22.2	61900.00	4201.00	5700.00	6000.00	8501.00	5700.00	9499.00	2842.00
71	2540X20	66661.00	4800.00	6500.00	6800.00	9899.00	6599.00	10999.00	3128.00
72	2540X22.2	71423.00	4800.00	6500.00	6800.00	9899.00	6599.00	10999.00	3128.00
73	2540X25	80946.00	4800.00	6500.00	6800.00	9899.00	6599.00	10999.00	3128.00

Note: 1) The above rates are basic rates. 2) GST extra applicable as per GO

10.1 MS SPECIALS AS PER IS 1916

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	Supply and Delivery of MS specials with inside lining/epoxy coating as per IS 13620 -1993 and outside coating with cement mortar 20mm thick as per IS 1916-1989 and IS 7322-1985.	Kg	96.00
2	Supply and Delivery of MS specials as per IS 7322-1985 without inside lining and outside coating.	Kg	88.00
3	Supply and Delivery of MS specials without inside lining and outside coating but with anti rust painting as per IS 14589 -1999.	Kg	90.00

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

## 11.0 RCC NON PRESSURE SPUN PIPE AS PER IS 458/2003

RCC non pressure spun pipe with socket and spigot ends as per IS 458/2003 manufactured with sulphate resistant cement with 12 mm HI -alumina lining provided for rubber ring joints.

SI No	SI. No. Internal Dia. Unit		Rate fo	or 2018-19 in	Rupees
31. NO.	mternar Dia.		NP2 Class	NP3 Class	NP4 Class
1	200mm	One Metre	647.00	686.00	726.00
2	250mm	One Metre	746.00	805.00	845.00
3	300mm	One Metre	873.00	983.00	1083.00
4	350mm	One Metre	1152.00	1690.00	1730.00
5	400mm	One Metre	1430.00	1918.00	1958.00
6	450mm	One Metre	1710.00	2220.00	2423.00
7	500mm	One Metre	2070.00	2515.00	2796.00
8	600mm	One Metre	2216.00	2892.00	3223.00
9	700mm	One Metre	3261.00	4413.00	4565.00
10	800mm	One Metre	3796.00	5276.00	5692.00
11	900mm	One Metre	4189.00	6085.00	6581.00
12	1000mm	One Metre	4967.00	6732.00	7779.00
13	1100mm	One Metre	5921.00	9618.00	10710.00
14	1200mm	One Metre	6794.00	11738.00	12925.00
15	1400mm	One Metre	8127.00	14530.00	16557.00
16	1500mm	One Metre	15975.00	17566.00	18326.00
17	1600mm	One Metre	18583.00	21606.00	22461.00

- 1) The above rates are basic rates inclusive of transportation charges to stockyard anywhere in Tamilnadu.
- 2) Unloading, stacking at stock yard and Conveyance from stock yard to site are extra.
- 3) GST extra applicable as per GO

## 11.1 RUBBER GASKETS AS PER IS 5382/1985 (Reaffirmed 1998)

SI. No.	Internal Dia.	Unit	Rate fo	or 2018-19 in	2018-19 in Rupees		
SI. NO.	internal Dia.	Onit	NP2 Class	NP3 Class	NP4 Class		
1	200mm	Each	32.00	37.00	44.00		
2	250mm	Each	37.00	44.00	51.00		
3	300mm	Each	44.00	51.00	57.00		
4	350mm	Each	51.00	63.00	69.00		
5	400mm	Each	70.00	84.00	88.00		
6	450mm	Each	90.00	100.00	101.00		
7	500mm	Each	100.00	120.00	120.00		
8	600mm	Each	120.00	150.00	156.00		
9	700mm	Each	157.00	183.00	196.00		
10	800mm	Each	180.00	215.00	221.00		
11	900mm	Each	240.00	270.00	277.00		
12	1000mm	Each	300.00	340.00	340.00		
13	1100mm	Each	360.00	460.00	460.00		
14	1200mm	Each	480.00	576.00	580.00		
15	1400mm	Each	600.00	740.00	740.00		
16	1500mm	Each	730.00	940.00	940.00		
17	1600mm	Each	806.00	1100.00	1100.00		

Note: 1) The above rates are basic rates.

# 12.0 CI D/F SLUICE VALVE WITH CAP/ WHEEL AS PER IS 14846/2000 PN 1.0 WITH ISI MARKING

SI.No.	Description	Unit	Rates for 2018-19 in Rupees
1	50 mm	Each	4049.00
2	65mm	Each	4644.00
3	80mm	Each	4916.00
4	100mm	Each	6884.00
5	125mm	Each	8899.00
6	150mm	Each	10651.00
7	200mm	Each	18152.00
8	250mm	Each	27964.00
9	300mm	Each	35457.00
10	350mm	Each	53336.00
11	400mm	Each	67668.00
12	450mm	Each	86070.00
13	500mm	Each	105986.00
14	600mm	Each	160261.00
15	700mm	Each	302607.00
16	750mm	Each	337462.00
17	800mm	Each	411654.00
18	900mm	Each	539783.00
19	1000mm	Each	832655.00
20	1100mm	Each	1034976.00
21	1200mm	Each	1223666.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

12.1 C.I. D/F REFLUX VALVE AS PER I.S. 5312/2004/ PART I/84 PN 1.0 WITH BYE-PASS ARRANGEMENTS WITH ISI MARKING

SI.No.	Description	Unit	Rates for 2018-19 in Rupees
1	50 mm	Each	4088.00
2	65 mm	Each	4556.00
3	80 mm	Each	5532.00
4	100 mm	Each	7146.00
5	125 mm	Each	9051.00
6	150 mm	Each	10814.00
7	200 mm	Each	22770.00
8	250 mm	Each	33568.00
9	300 mm	Each	43876.00
10	350 mm	Each	69005.00
11	400 mm	Each	90663.00
12	450 mm	Each	127082.00
13	500 mm	Each	183108.00
14	600 mm	Each	236547.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

12.2 C.I. DOUBLE AIR VALVE AS PER ISI 14845/2000

SI.No.	Description	Unit	Rates for 2018-19 in Rupees
1	40 mm	Each	4293.00
2	50 mm	Each	5303.00
3	80 mm	Each	7169.00
4	100 mm	Each	9760.00
5	150mm	Each	19562.00
6	200mm	Each	31979.00

Note:

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

## 12.3 CI SINGLE AIR VALVE AS PER ISI 14845/2000

SI.No.	Description	Unit	Rates for 2018-19 in Rupees
1	15mm	Each	1125.00
2	25 mm	Each	1618.00
3	40 mm	Each	2022.00
4	50 mm	Each	2242.00
5	80 mm	Each	3003.00
6	100 mm	Each	3269.00
7	150mm	Each	5818.00

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

# 12.4 KINETIC AIR VALVES FOR HANDLING MORE VOLUMES OF AIR IN PUMPING MAIN, DOUBLE ORIFICE KINETIC AIR VALVE CONFIRMING TO IS 14845 TAMPER PROOF DESIGN (PN-1)

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	50mm	1 No.	11776.00
2	80mm	1 No.	14576.00
3	100mm	1 No.	19588.00
4	150mm	1 No.	34278.00
5	200mm	1 No.	49226.00

Note:

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

# 12.5 CI SLUICE VALVES NON RAISING SPINDLE TYPES TO PRESSURE RATING OF 1.6 PN TO BE USED IN PUMP HOUSES (LONG BODY/ LONG FACE TO FACE) Conforming to IS.

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	100mm	1No.	8218.00
2	125mm	1No.	10179.00
3	150mm	1No.	13217.00
4	200mm	1No.	22655.00
5	250mm	1No.	30523.00
6	300mm	1No.	42127.00
	With spur gear arrangements		
7	350mm	1No.	67749.00
8	400mm	1No.	87141.00
9	450mm	1No.	107685.00
10	500mm	1No.	135141.00
11	600mm	1No.	200277.00

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

# 12.6 BUTTERFLY VALVES WITH TOP AND BOTTOM OF S.S. 410 SHAFT, WAFER LINER/ WITH REDUCTION GEAR UNIT (Conforming to BS 5155 & IS 13095/1996)

#### 12.6.1 WAFERLINER

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	100mm	1 No.	2886.00
2	150mm	1 No.	4092.00
3	200mm	1 No.	11357.00
4	250mm	1 No.	14661.00
5	300mm	1 No.	19194.00

#### 12.6.2 D/F GEAR OPERATED

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	400mm	1 No.	70428.00
2	450mm	1 No.	86794.00
3	500mm	1 No.	93790.00
4	600mm	1 No.	115249.00

Conforming to standard BS 5155 Butterfly valve with Body, Disc and retainer of Cast Iron Grade F.260 with EDPM rubber sleeve. Internal hardware shall be confirming to AISI 304. External hardware Carbon Steel shall be confirming to IS 1367. Top and bottom shaft stainless steel to AISI 410. Body and disc should be tested (Hydro test) to  $15 \, \text{kg/sq.cm.}$ 

#### 12.7 NON RETURN VALVES

## 12.7.1 WAFER TYPE (DUAL PLATE CHECK VALVE) CONFORMING TO IS

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	100mm	1 No.	3481.00
2	150mm	1 No.	7752.00
3	200mm	1 No.	14218.00
4	250mm	1 No.	24774.00
5	300mm	1 No.	31650.00

## 12.7.2 DOUBLE FLANGED (DUAL PLATE CHECK VALVE)

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	400mm	1 No.	75156.00
2	450mm	1 No.	82321.00
3	500mm	1 No.	91597.00
4	600mm	1 No.	113190.00
5	700mm	1 No.	194358.00
6	800mm	1 No.	306525.00
7	900mm	1 No.	428670.00
8	1000mm	1 No.	557529.00
9	1100mm	1 No.	696813.00
10	1200mm	1 No.	828390.00

Construction conforming to standard API 594. Body should confirm cast iron Grade FG 260 (IS 210), Disc plates confirming to ASTM A216, hinch pin/ stop pin/ spring should be of SS to AISI 410/304. Body seat should be of EDPM rubber. The body should be tested to 15 kg/ sq.cm and seat should be tested to 10 kg/ sq.cm

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

2) GST extra applicable as per GO

## 12.7.3 D/F NON RETURN VALVE (OUT DOOR USE)

CI Single Door/ Multi Door Non return valve conforming to IS 5312/2003(part I & II) to be fixed after Water meter/ Flow recorder on pumping main near Pump house with dash pot arrangement for 90% fast closing & 10% slow closing.

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	300mm	1 No.	57011.00
2	350mm	1 No.	87017.00
3	400mm	1 No.	104992.00
4	450mm	1 No.	145762.00
5	500mm	1 No.	191050.00
6	600mm	1 No.	293577.00
7	700/750mm	1 No.	460483.00
8	800mm	1 No.	534582.00
9	900mm	1 No.	1022763.00
10	1000mm	1 No.	1329700.00
11	1100mm	1 No.	1636639.00
12	1200mm	1 No.	1841083.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

#### 12.8 DI SINGLE CHAMBER AIR RELEASE VALVE

Manufacture, Supply and Delivery of Tamper proof DI single chamber air release valves with pressure range from PN 1.0 to 2.5 with body and cover made of Ductile Iron of Grade GGG 40 or equivalent grade conforming to IS 1865 with Food Grade Epoxy Powder coating(EP-P) inside and for outside of colour blue RAL 5005. All internal parts such as float, shell etc., cover bolts, made of Austenitic alloy steel of SS AISI 304/316. The float shall be made of Polytetrafluroethylene/ Austenitic alloy steel of AISI 304/316. Gaskets and seals of EPDM / Neoprene rubber for TWAD Board works anywhere in Tamil Nadu.

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	50mm	each	26681.00
2	80mm	each	35595.00
3	100mm	each	41558.00
4	150mm	each	50592.00
5	200mm	each	59025.00

Note:

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

#### 12.9 DI D/F GATE VALVES

Supply and Delivery of DI D/F Gate valves (Soft Seated) resilient seated soft sealing gate valves (sluice valves) with body bonnet of ductile cast iron of grade GGG40 or equivalent grade, wedge fully rubber lined with EPDM, replaceable spindle nut, without gland packing and with 3 O-Ring protection on the shaft and seals of NBR and the valves should be of vaccum tight and 100% leak proof with face to face dimentions as EPR BS 5163-89/ ISI 14846-2000/ DIN 3202 F 4. All the valves should be with electrostatic powder coating both inside and outside with pocket less straight thro' body passage. All the valves are to be compatible for burried application with pressure rating PN 10/16

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	50mm	1 No.	8067.00
2	80mm	1 No.	9961.00
3	100mm	1 No.	13132.00
4	150mm	1 No.	20676.00
5	200mm	1 No.	34360.00
6	250mm	1 No.	49883.00
7	300mm	1 No.	71920.00
8	350mm	1 No.	199812.00
9	400mm	1 No.	247416.00

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

#### 12.10 DI D/F BUTTERFLY VALVES

Supply and Delivery of DI D/F Butterfly Valves with GGG40 or equivalent grade as per IS 3896 (part 2) 1985 and subsequent revisions double ecentrically disc with renevable soft seal on the disc and body seat face of stainless steel / nickel weld overlay microfinished 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

SI.No.	Description	Unit	Rate for 2018-19 in Rupees		
31.110.	Description	Offic	PN 10	PN 16	
1	400mm	1 No.	143405.00	195886.00	
2	450mm	1 No.	200108.00	215043.00	
3	500mm	1 No.	203246.00	217094.00	
4	600mm	1 No.	265201.00	284530.00	
5	700mm	1 No.	397801.00	477786.00	
6	800mm	1 No.	501217.00	601751.00	
7	900mm	1 No.	644627.00	752072.00	
8	1000mm	1 No.	830193.00	969060.00	
9	1100mm	1 No.	1095756.00	1148075.00	
10	1200mm	1 No.	1304750.00	1308231.00	

Note:

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

#### 12.11 DI Non - Return Valve

Manufacture, Supply and Delivery of DI D/F Slanted seat Swing Check Valve. Body of ductile cast iron GGG-40 or equivalent grade and disc of ductile cast iron GGG-40 or equivalent grade with fully encapsulated EPDM rubber, where both faces can be used. Electrostatic epoxy powder/liquid coating (EP-P) inside and outside color blue RAL 5005 with minimum coating thickness of 250 microns. The EPDM rubber & Epoxy Powder should be approved by W 270. (EP-P) it is a resi-coat powder approved for drinking water application, applied through fusion bonding process by dipping the shot-blasted casted components heated up to 200 deg C). Face to face dimensions as per EN558-1, series 48 and flange connections as per EN 1092-2/IS 1538.

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	40mm	1 No.	10158.00
2	50mm	1 No.	10456.00
3	65mm	1 No.	13375.00
4	80mm	1 No.	14537.00
5	100mm	1 No.	17162.00
6	125 mm	1 No.	26133.00
7	150mm	1 No.	32859.00
8	200 mm	1 No.	52271.00
9	250mm	1 No.	100081.00
10	300mm	1 No.	136974.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

## 12.12 DI Wafer type Butterfly Valve

Manufacturing, supply and delivery of resilient seated wafer type butterfly valve in accordance with EN 593, centric disk mounted in three maintenance-free bearing bushes, tight in both flow directions, Replaceable rubber sleeve with integrated seal for functionally reliable use for flared flanges, welding flanges, PE flanges as well as loose flanges with V-collar, Stable seat due to collar with vulcanized support ring. Vaccum tight upto 1 Torr. Face to face length acc.to 558-1, basic series 20 (DIN 3202/k1). With Electrostatic epoxy powder coating (EP-P) inside and outside color blue RAL 5005 with minimum coating thickness of 250 microns. The EPDM rubber & Epoxy Powder should be approved by W 270.(EP-P it is resi-coat powder approved for drinking water application, applied through fusion bonding technology process by dipping the shot-blasted casted components heated upto 200 deg C).

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	40mm	1 No.	10062.00
2	50mm	1 No.	10062.00
3	65mm	1 No.	10399.00
4	80mm	1 No.	11322.00
5	100mm	1 No.	13281.00
6	125 mm	1 No.	15055.00
7	150mm	1 No.	22870.00
8	200 mm	1 No.	27036.00
9	250mm	1 No.	45144.00
10	300mm	1 No.	75481.00
11	350mm	1 No.	115295.00
12	400mm	1 No.	157359.00
13	450mm	1 No.	263402.00
14	500mm	1 No.	269705.00

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO.

#### 12.13 DI Disk Check Valve

Manufacture, supply and delivery of DI D/F Slanted seat Tilting Disc Swing Check Valve in single piece body and closed eye disc construction. Hemisherical disc with 59 degree inclination for fast open and closing. Corrosion proof and wear resistent(triple offset) disc face & body seat face, both made of fusion bonded Nickel Chromium weld overlay and microfinished. Body and disc of ductile cast iron GGG-40 or equivalent grade, medium free(dry) shafts of stainless steel and bearings of Zinc-free Bronze, Valve should have provision for internal damping unit for reducing the effects of water hammer/surge, if required at later stage. Electrostatic epoxy powder/liquid coating(EP-P) inside and outside color blue RAL 5005 with minimum coating thickness of 150 microns. The EPDM rubber & Epoxy Powder should be approved by W 270.(EP-P it is a resi-coat powder approved for drinking water application, applied through fusion bonding technology process by dipping the shot-blasted casted components heated upto 200deg C). Face to face dimensions as per EN 558-1 series 14 and flange connections as per EN 1092-2/IS

SI.No.	Description	Unit	Rate for 2018-19 in Rupees		
31.140.	Description	Offic	PN 10	PN 16	
1	200mm	1 No.	375221.00	375221.00	
2	250mm	1 No.	377681.00	377681.00	
3	300mm	1 No.	379356.00	379356.00	
4	350mm	1 No.	429865.00	429865.00	
5	400mm	1 No.	422533.00	422533.00	
6	45 0mm	1 No.	578726.00	582691.00	
7	500mm	1 No.	515271.00	568949.00	
8	600mm	1 No.	701474.00	713170.00	
9	700mm	1 No.	1546433.00	1582617.00	
10	800mm	1 No.	1797576.00	1866131.00	
11	900mm	1 No.	2046934.00	2149289.00	
12	1000mm	1 No.	2504435.00	2536235.00	

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

#### 12.14 DI Diaphragm Type Flow Control Valve

**12.14.1 DI Altitude Control Valve (PN10/16)** with the function to prevent water level in a tank from exceeding a set level. The set level can be changed as per the requirement.

"Manufacture supply and delivery of DI D/F Diaphragm type own medium controlled Altitude Control valve with cast body of ductile iron grade GGG-40 or equivalent grade or as per IS 3896-Part-2-1985 customized control cylinder for linear control behaviour or equivalent, performed diaphragm and pull out safe profile sealing ring of EPDM, threaded inserts (CORFIX - to prevent the coating from coming off in the connections area as well as corrosion and incrustations in the control circuit) or equivalent. Flange connection dimensions according to EN 1092, Part 2/ ISO 7005[DIN]/ IS 1538, all parts (Epoxy coating, and diaphragm) in contact with medium are as per KTW and DVGW certified (harmless)/WRAS & NSF approved. The EPDM rubber & Epoxy coating (EP-P) should be approved by W270. (EP-P)/WRAS & NSF."

Pilot valve system having Stainless Steel / Brass fittings as per standard parts according to DIN EN 12 266-1 with all the external control tubing of SS 304 / copper / reinforced plastic rated PN16 Tightness to DIN EN 12 266-1, leakage rate A (or) equivalent and the needle valve / speed control device should be provided to vary opening speed of the main diaphragm with self-cleaning filter to avoid possibility of dirt build up inside the control tubing.

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	50mm	1 No.	97685.00
2	65mm	1 No.	100165.00
3	80mm	1 No.	110349.00
4	100mm	1 No.	137538.00
5	150mm	1 No.	181023.00
6	200 mm	1 No.	279681.00
7	250mm	1 No.	343889.00
8	300mm	1 No.	533148.00
9	350mm	1 No.	790866.00
10	400mm	1 No.	1347660.00

Note:

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

Note:

**EN** - European standard - Sets standards for rubber materials for seals and diaphragms

- German national standard - Sets standards for rubber materials for seals and diaphragms

**KTW** - (Germany) Guideline of the Federal Environmental Agency: Includes a list of approved starting elastomers, test methods and limits for values obtained.

OVGW - (German Association for Gas and Water) worksheet W 270- Sets tests for microbial growth enhancement of non-metallic materials In contact with drinking water.

WRAS - Water Regulations Advisory Scheme: Two tests related to odour, flavor and taste
of water and three tests that examine leachable chemicals and growth of
microorganisms.

NSF - National Science Foundation (NSF) ANSI 61 (USA): Defines the levels of contaminants and impurities that can be leached from elastomer components.

**12.14.2 DI Pressure Reducing Valve (PN10/16)** with the function to reduce downstream pressure to set point irrespective of upstream fluctuations. The downstream pressure set point can be changed as per the requirement.

"Manufacture supply and delivery of DI D/F Diaphragm type own medium controlled Pressure Reducing valve with cast body of ductile iron grade GGG-40 or equivalent grade or as per IS 3896-Part-2-1985 customized control cylinder for linear control behaviour or equivalent, performed diaphragm and pull out safe profile sealing ring of EPDM, threaded inserts (CORFIX - to prevent the coating from coming off in the connections area as well as corrosion and incrustations in the control circuit) or equivalent. 2 pressure gauges for operator-friendly control to determine the actual inlet and outlet pressure connected directly to the valve. Flange connection dimensions according to EN 1092, Part 2/ ISO 7005[DIN]/ IS 1538, all parts (Epoxy coating, and diaphragm) in contact with medium are as per KTW and DVGW certified (harmless)/ WRAS & NSF approved. The EPDM rubber & Epoxy coating (EP-P) should be approved by W270.(EP-P)/ WRAS & NSF."

Pilot valve system having Stainless Steel / Brass fittings with spring of SS 304 as per standard parts according to DIN EN 12 266-1 with all the external control tubing of SS 304 / Copper/ reinforced plastic rated PN16, Tightness to DIN EN 12 266-1, leakage rate A (or) equivalent and the needle valve/ speed control device should be provided to vary opening speed of the main diaphragm with self-cleaning filter to avoid possibility of dirt build up inside the control tubing.

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	50mm	1 No.	61905.00
2	65mm	1 No.	64385.00
3	80mm	1 No.	74570.00
4	100mm	1 No.	85818.00
5	150mm	1 No.	145420.00
6	200 mm	1 No.	202100.00
7	250mm	1 No.	266220.00
8	300mm	1 No.	455390.00
9	350mm	1 No.	674229.00
10	400mm	1 No.	1254491.00

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

**12.14.3 DI Flow rate Limit control Valve (PN10/16)** with the function to limit the flow rate to a set point. In case the downstream demand increases beyond the set limit, the valve closes down to bring the flow back to set limit. The valve shall have an orifice plate and the orifice diameter is designed based on the set point as per the requirement and installed downstream of the control valve.

"Manufacture supply and delivery of DI D/F Diaphragm type own medium controlled Flow rate Limit Control valve with cast body of ductile iron grade GGG-40 or equivalent grade or as per IS 3896-Part-2-1985 customized control cylinder for linear control behaviour or equivalent, performed diaphragm and pull out safe profile sealing ring of EPDM, threaded inserts (CORFIX - to prevent the coating from coming off in the connections area as well as corrosion and incrustations in the control circuit) or equivalent. Flange connection dimensions according to EN 1092, Part 2/ ISO 7005[DIN]/ IS 1538, all parts (Epoxy coating, and diaphragm) in contact with medium are as per KTW and DVGW certified (harmless)/WRAS & NSF approved. The EPDM rubber & Epoxy coating (EP-P) should be approved by W270. (EP-P)/ WRAS & NSF."

Pilot valve system having Stainless Steel / Brass fittings with spring of stainless steel 304 as per standard parts according to DIN EN 12 266-1, orifice plate shall be as per the set point of flow rate and all the external control tubing of SS 304 / Copper/reinforced plastic rated PN16, Tightness to DIN EN 12 266-1, leakage rate A (or) equivalent and the needle valve/ speed control device should be provided to vary opening speed of the main diaphragm with self-cleaning filter to avoid possibility of dirt build up inside the control tubing.

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	50mm	1 No.	78556.00
2	65mm	1 No.	81035.00
3	80mm	1 No.	94763.00
4	100mm	1 No.	102468.00
5	150mm	1 No.	180225.00
6	200 mm	1 No.	236905.00
7	250mm	1 No.	301025.00
8	300mm	1 No.	490284.00
9	350mm	1 No.	726569.00
10	400mm	1 No.	1296294.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

**12.14.4 DI Pressure Sustaining / Relief Valve (PN10/16)** with the function to relieve excess pressure in the downstream pressure to set point irrespective of upstream fluctuations. The downstream pressure set point can be changed as per the requirement.

"Manufacture supply and delivery of DI D/F Diaphragm type own medium controlled Pressure Sustaining / Relief valve with cast body of ductile iron grade GGG-40 or equivalent grade or as per IS 3896-Part-2-1985 customized control cylinder for linear control behaviour or equivalent, performed diaphragm and pull out safe profile sealing ring of EPDM, threaded inserts (CORFIX - to prevent the coating from coming off in the connections area as well as corrosion and incrustations in the control circuit) or equivalent. 2 pressure gauges for operator-friendly control to determine the actual inlet and outlet pressure connected directly to the valve. Flange connection dimensions according to EN 1092, Part 2/ ISO 7005[DIN]/ IS 1538, all parts (Epoxy coating, and diaphragm) in contact with medium are as per KTW and DVGW certified (harmless)/ WRAS & NSF approved. The EPDM rubber & Epoxy coating (EP-P) should be approved by W270.(EP-P)/ WRAS & NSF."

Pilot valve system having Stainless Steel / Brass fittings with spring of stainless steel 304 as per standard parts according to DIN EN 12 266-1 with all the external control tubing of SS 304/ Copper/ reinforced plastic rated PN16, Tightness to DIN EN 12 266-1, leakage rate A (or) equivalent and the needle valve/ speed control device should be provided to vary opening speed of the main diaphragm with self-cleaning filter to avoid possibility of dirt build up inside the control tubing.

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	50mm	1 No.	61905.00
2	65mm	1 No.	64385.00
3	80mm	1 No.	74570.00
4	100mm	1 No.	85818.00
5	150mm	1 No.	145420.00
6	200 mm	1 No.	202100.00
7	250mm	1 No.	266220.00
8	300mm	1 No.	455390.00
9	350mm	1 No.	674229.00
10	400mm	1 No.	1254491.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

**12.14.5 DI Pump control Valve (PN10/16)** with the function to open / close the pump discharge to the downstream network gradually the start-up / shut-off of a pump to protect the pumping assembly.

"Manufacture supply and delivery of DI D/F Diaphragm type own medium controlled Pump Control Valve with cast body of ductile iron grade GGG-40 or equivalent grade or as per IS 3896-Part-2-1985 customized control cylinder for linear control behaviour or equivalent, performed diaphragm and pull out safe profile sealing ring of EPDM, threaded inserts (CORFIX - to prevent the coating from coming off in the connections area as well as corrosion and incrustations in the control circuit) or equivalent. Flange connection dimensions according to EN 1092, Part 2/ ISO 7005[DIN]/ IS 1538, all parts (Epoxy coating, and diaphragm) in contact with medium are as per KTW and DVGW certified (harmless)/WRAS & NSF approved. The EPDM rubber & Epoxy coating (EP-P) should be approved by W270.(EP-P)/ WRAS & NSF."

Pilot valve system having Stainless Steel / Brass fittings as per standard parts according to DIN EN 12 266-1 and 3 way NO 24 V AC 50/60 Hz Solenoid, all the external control tubing of SS 304/ Copper/ reinforced plastic rated PN16 with Position indicator, Tightness to DIN EN 12 266-1, leakage rate A (or) equivalent and the needle valve/ speed control device should be provided to vary opening speed of the main diaphragm with self-cleaning filter to avoid possibility of dirt build up inside the control tubing.

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	50mm	1 No.	105035.00
2	65mm	1 No.	107515.00
3	80mm	1 No.	117700.00
4	100mm	1 No.	128948.00
5	150mm	1 No.	235223.00
6	200 mm	1 No.	292169.00
7	250mm	1 No.	356288.00
8	300mm	1 No.	545546.00
9	350mm	1 No.	1236071.00
10	400mm	1 No.	1362628.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

12.14.6 DI Pressure Reducing and Flow Limit Control Valve (PN10/16) with the function to reduce higher upstream pressure into a preset lower downstream pressure and to not allow flow rate in the line to exceed beyond the defined set point. The flow orifice diameter is designed based on the set point as per the design requirement. The set point can be changed to a maximum of +10%.

"Manufacture supply and delivery of DI D/F Diaphragm type own medium controlled Pressure Reducing and flow limit control valve with cast body of ductile iron grade GGG-40 or equivalent grade or as per IS 3896-Part-2-1985 customized control cylinder for linear control behaviour or equivalent, performed diaphragm and pull out safe profile sealing ring of EPDM, threaded inserts (CORFIX - to prevent the coating from coming off in the connections area as well as corrosion and incrustations in the control circuit) or equivalent. 2 pressure gauges for operator-friendly control to determine the actual inlet and outlet pressure connected directly to the valve. Flange connection dimensions according to EN 1092, Part 2/ ISO 7005[DIN]/ IS 1538, all parts (Epoxy coating, and diaphragm) in contact with medium are as per KTW and DVGW certified (harmless)/WRAS & NSF approved. The EPDM rubber & Epoxy coating (EP-P) should be approved by W270.(EP-P)/ WRAS & NSF."

Pilot valve system having Stainless Steel / Brass fittings with spring of stainless steel 304 as per standard parts according to DIN EN 12 266-1 and Stainless steel 316 orifice plate shall be as per the set point of flow rate, all the external control tubing of SS 304 / Copper/ reinforced plastic rated PN16, Tightness to DIN EN 12 266-1, leakage rate A (or) equivalent and the needle valve/ speed control device should be provided to vary opening speed of the main diaphragm with self-cleaning filter to avoid possibility of dirt build up inside the control tubing.

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	50mm	1 No.	109464.00
2	65mm	1 No.	111944.00
3	80mm	1 No.	122128.00
4	100mm	1 No.	133375.00
5	150mm	1 No.	211134.00
6	200 mm	1 No.	267814.00
7	250mm	1 No.	331934.00
8	300mm	1 No.	521193.00
9	350mm	1 No.	1200646.00
10	400mm	1 No.	1327201.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

12.14.7 DI Altitude Control and Flow Control Valve (PN10/16) with the function to ensure that water in tank does not exceed a certain level and the same time not allow flow rate to exceed set point. The Hydraulic Valve trim connection shall have two metal points, one for Altitude control and Flow-rate control function. The valve shall use an orifice plated on downstream side to limit the flow rate. The set level can be changed to a maximum of +10%.

"Manufacture supply and delivery of DI D/F Diaphragm type own medium controlled Altitude Control and Flow Control Valve with cast body of ductile iron grade GGG-40 or equivalent grade or as per IS 3896-Part-2-1985 customized control cylinder for linear control behaviour or equivalent, performed diaphragm and pull out safe profile sealing ring of EPDM, threaded inserts (CORFIX - to prevent the coating from coming off in the connections area as well as corrosion and incrustations in the control circuit) or equivalent. Flange connection dimensions according to EN 1092, Part 2/ ISO 7005[DIN]/ IS 1538, all parts (Epoxy coating, and diaphragm) in contact with medium are as per KTW and DVGW certified (harmless)/WRAS & NSF approved. The EPDM rubber & Epoxy coating (EP-P) should be approved by W270.(EP-P)/ WRAS & NSF."

Pilot valve system having Stainless Steel / Brass fittings with spring of SS 304 for altitude pilot as per standard parts according to DIN EN 12 266-1, the stainless steel 316 of orifice plate and dimension of orifice as per the flow rate set point, all the external control tubing of SS 304 / copper / reinforced plastic rated PN16, Tightness to DIN EN 12 266-1, leakage rate A (or) equivalent and the needle valve / speed control device should be provided to vary opening speed of the main diaphragm with self-cleaning filter to avoid possibility of dirt build up inside the control tubing.

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	50mm	1 No.	145243.00
2	65mm	1 No.	147723.00
3	80mm	1 No.	161450.00
4	100mm	1 No.	169155.00
5	150mm	1 No.	246913.00
6	200 mm	1 No.	303594.00
7	250mm	1 No.	367713.00
8	300mm	1 No.	556971.00
9	350mm	1 No.	1236425.00
10	400mm	1 No.	1362981.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

#### 12.15 DI Plunger type flow control Valve

"Manufacturing, supply and delivery of DI D/F Plunger type(Control valve) with one piece body of ductile cast iron of grade GGG-40, all internal parts of stainless steel. Piston guides of bronze welded overlay & micro-finished and bearing bush of zinc free Bronze. Valve/profile sealing seat shall be in the no-flow zone. Double sealing effect between the body and the plunger shall be by Quadring Seal (twist free operation). The valve shall be designed to operate smoothly throughout the specified flow range without cavitation. Corrosion protected medium free bearing in the body by way of double O-ring seal and encapsulated shaft seal. There shall be no obstacles in the main flow passage except the plunger and the attached control cylinders. Plunger shall be by means of stainless steel crank drive mechanism. Face-to-face dimensions EN558-1 basic series 15 and 1.5X DN from DN500 and flange connections as per EN1092-2/ISO 7005[DIN]".

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	150mm	1 No.	661492.00
2	200mm	1 No.	743455.00
3	250mm	1 No.	1004380.00
4	300mm	1 No.	1148600.00
5	400 mm	1 No.	1851818.00
6	450mm	1 No.	2475761.00
7	500 mm	1 No.	3261892.00
8	600mm	1 No.	4286346.00
9	700mm	1 No.	5337889.00
10	800mm	1 No.	6207504.00
11	900mm	1 No.	8187069.00
12	1000mm	1 No.	9326363.00

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

#### 12.16 DI Surge Control Valve

"Manufacturing, supply and delivery of Surge anticipating Relief valves against power failure surges or pressure waves caused by velocity changes, quick opening relief easily adjustable pressure setting. The valve should remain closed when line pressure is between the set-points of the two pilots. The valve should open initially when line pressure drops below the setting of the low-pressure pilot to anticipate surges associated with a pump stopping. The valve will also continue to react and remain open when the return high-pressure wave is above the setting of the high-pressure pilot or open when inlet pressure exceeds a pre-determined set-point at which time the valve opens quickly. With high speed discharge, with flange dimension to EN 1092-2/ ISO 7005[DIN]. Body and cover in ductile cast iron of Grade GGG 40 or equivalent grade. All internal parts & all cover bolts of austenitic alloy steel and gaskets and seals of EPDM of grade W 270(approved for drinking water) with Electrostatic epoxy powder coating (EP-P) inside and outside color blue RAL 5005 with minimum coating thickness of 250 microns".

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	50mm	1 No.	92556.00
2	80mm	1 No.	101170.00
3	100mm	1 No.	126489.00
4	150mm	1 No.	179981.00
5	200 mm	1 No.	264606.00

Note:

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

#### 12.17 OHT FLOW CONTROL VALVE

Supply and delivery of the following sizes of OHT flow control valve with female BSP threaded ends, (20mm length) with Stainless Steel Body as per ANSI 202 Grade, Plug, Flange – Nylon 66, (with life cycle test certificate from FCRI/NABL accredited lab, Working Pressure 10 KSC, FCRI, Palgaut pressure test and flow test to be furnished) Triangular notch type flow control path with opening reference scale arrangements for flow notch and Upstream & Downstream pressure checking spring loaded mouth arrangements.

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
a.	40mm (1 lpm to 400lpm adjustable		
	type arrangements)	Each	4927.00
b	100mm (20 lpm to 2000 lpm		
	adjustable type arrangements)	Each	17850.00

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

## 13.0 SALT GLAZED STONEWARE PIPE AS PER IS 651/2007 of 600MM length

SI.No.	Description	Unit	Rate for 2018-19 in Rupees	
			SP1 Class	SP2 Class
1	100mm	Each	101.00	110.00
2	150mm	Each	174.00	191.00
3	200mm	Each	266.00	291.00
4	250mm	Each	433.00	471.00
5	300mm	Each	678.00	737.00

# 13.1 SALT GLAZED STONEWARE PIPE AS PER IS 651/2007 of 1000MM length with Rubber Gasket

SI.No.	Description	Unit	Rate for 2018-19 in Rupees	
			SP1 Class	SP2 Class
1	150mm	Each	420.00	480.00
2	200mm	Each	630.00	687.00
3	250mm	Each	1180.00	1284.00

# 13.2 SALT GLAZED STONEWARE PIPE AS PER IS 651/2007 of 1200MM length with Rubber Gasket

SI.No.	Description	Unit	Rate for 2018-19 in Rupees	
			SP1 Class	SP2 Class
1	150mm	Each	531.00	580.00
2	200mm	Each	757.00	825.00
3	250mm	Each	1430.00	1559.00

Note:

- 1) The above rates are basic rates inclusive of transportation charges to stockyard anywhere in Tamilnadu.
- 2) Unloading, stacking at stock yard and Conveyance from stock yard to site are extra.
- 3) GST extra applicable as per GO

#### 14.0 SULPHATE RESISTANT CEMENT AS PER IS 12330/1988

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	Sulphate Resistant Cement as per IS 12330/1988 and as amended from time to time.	МТ	5625.00

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

# 15.0 FIBER REINFORCED CONCRETE FRAME AND COVER AS PER 1S 12592/2002, PART 1 & 2

SI.No.	Description		for 2018-19 n Rupees
	Supply and delivery of following sizes	Heavy	Extra Heavy duty
	of FRC Manhole Covers / Frames to	duty	
	stores on as per IS 12592:2002 to its		
	latest revision with reinforcement		
	details for covers and frames.		
1	450mm dia FRC manhole cover to		
	suit 450 mm clear opening manhole		
	frame	727.00	799.00
2	450mm dia FRC manhole frame to have		
	clear opening of 450mm dia to suit		
	450mm dia FRC Cover	908.00	1000.00
3	600mm dia FRC manhole cover to		
	suit 600 mm clear opening manhole		
	frame	937.00	1030.00
4	600mm dia FRC manhole frame to		
	have clear opening of 600mm dia		
	to suit 600mm dia FRC Cover	1338.00	1472.00

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

# 16.0 WATER METER CONFORMING TO ISO 4064 & DIRT BOX STRAINER (NON DOMESTIC PURPOSE)

Supply and delivery of Woltman model with removal mechanism water meters confirming to ISO 4064 part I, II,III class B or IS 779 and IS 2373 with life cycle test certificate from FCRI/ NABL accredited lab. The water meters shall have magnetic drivers or mechanical drivers and shall be versatile for installation in any position . The meters shall be hydrodynamically, hydrostatically balanced. The runner, runner chamber, pointers of the meter shall be as per ISO 4064 class B specification. Dry dial excavated counter housing fully protected against flooding ensuring easy reading in all climates.

SI.No.	Description	Unit	Rate	for 2018-19 in l	Rupees
31.140.	Description	Offic	Water meter	Dirt Box	Erection Charges
1	50mm	Each	8805.00	2751.00	2686.00
2	80mm	Each	11645.00	4456.00	3350.00
3	100mm	Each	14852.00	5464.00	5215.00
4	150mm	Each	24381.00	9085.00	6133.00
5	200mm	Each	27038.00	10986.00	7641.00
6	250mm	Each	60491.00	23613.00	8663.00
7	300mm	Each	103415.00	42064.00	9281.00
8	400mm	Each	174356.00	70019.00	9450.00
9	500mm	Each	202907.00	101845.00	9471.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

- 2) GST extra applicable as per GO
- 3) Erection charges includes earth work excavation, labour charges, cutting and threading, conveyance, welding and hire charges for tools and plants ets., complete.

#### 16.1 ORIFICE TYPE ELECTRONIC WATER METER (Deleted)

#### 16.2 FULL BORE ELECTROMAGNETIC FLOW METER

Electromagnetic Flow Meter conforming to ISO 17025 Standard shall be a velocity sensing Electromagnetic type, microprocessor based signal converter, sealed housing, flanged tube meter for 1.0 Mpa working pressure, manufactured to highest standard available for mag-meters, equipped with minimum six digit digital totalizers, reading in units of kiloliters and shall be accurate within 0.5% of Measured value, shall operate within a range of 0.3m/sec to 4 m/sec and be constructed as follows: Meter tube (Sensor) shall be fabricated from stainless steel tube and use class PN10 flat face carbon street flanges in accordance with IS 1538. These flanges shall be welded to the flow tube. The internal and external of the meter tube shall be blasted to near white and lined with hard rubber /Polyurethane/PTFE preferably by SBR or EPDM. Meter tube shall have a constant nominal inside diameter offering no obstruction to the flow. The accuracy should be inclusive of linearity, hysteresis, repeatability, temperature and pressure effects. Coil Housing shall be fabricated from stainless steel/SS304/Die cast Aluminium/Carbon Steel with Anticorrosive paint for corrosion resistance and welded to the tube providing a completely sealed environment for all coils, electrode connections and wiring harness capable of submerged or buried operation. Signal Converter shall be pulsed DC coil excitation type with auto zeroing. The signal converter shall be remotely mounted away from the meter. The converter shall indicate direction of flow and provide a flow rate indication and a total of flow volume for both forward and reverse directions. The converter shall provide an isolated 4-20 mA output into minimum 500-ohm load and a frequency output of a maximum of 0-10 KHZ and a scaled pulse output. The microprocessor based signal converter shall have a self-diagnostic test mode and a backlit display that continuously displays "Rate of Flow" and "Total Volume."Converter shall be supplied with a programmable low flow drop out and empty pipe zero return. The signal converter housing should be die-cast aluminium with glass window. The converter cum transmitter should be fully programmable form the front facia. The programming should be user friendly, self-prompting menu driven. Flow meter test calibration certificate should be provided with life cycle test certificate from FCRI/NABL accredited lab.

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	10MM	1 No.	79790.00
2	25 MM	1 No.	72388.00
3	50 MM	1 No.	80596.00
4	80 MM	1 No.	91396.00
5	100 MM	1 No.	97876.00
6	125 MM	1 No.	108676.00
7	150MM	1 No.	125956.00
8	200MM	1 No.	187974.00
9	250MM	1 No.	214317.00
10	300 MM	1 No.	241849.00
11	350MM	1 No.	315789.00
12	400MM	1 No.	369844.00
13	450MM	1 No.	454737.00
14	500 MM	1 No.	494793.00
15	600MM	1 No.	571780.00
16	700 MM	1 No.	636265.00
17	800MM	1 No.	737327.00
18	900 MM	1 No.	820014.00
19	1000 MM	1 No.	927936.00
20	1200 MM	1 No.	1326316.00
21	1400MM	1 No.	1642105.00
22	1600MM	1 No.	1894737.00
23	1800 MM	1 No.	2400000.00
24	2000 MM	1 No.	3149997.00
25	2200 MM	1 No.	3254997.00
26	2400MM	1 No.	3674997.00
27	2600 MM	1 No.	4042497.00
28	2800 MM	1 No.	4549995.00
29	3000 MM	1 No.	4899995.00

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

#### 17.0 HDPE TANK

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	Supply and delivery and fixing of HDPE		
	tank as per IS 12701 / 1996 including		
	loading, unloading, transportation and		
	labour charges for fixing of the GI		
	pipes and specials for pipe connection		
	works including cutting, threading and		
	fixing charges etc.,		
	200 litres	1 No.	1642.00
	500 litres	1 No.	3953.00
	1000 litres	1 No.	7905.00
	2000 litres	1 No.	18480.00
	5000 litres	1 No.	43512.00
	10000 litres	1 No.	92400.00

Note:

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

## **18.0 MS KIOSK**

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	Supply and delivery of MS Kiosk of size 0.75m x 0.45m x 0.75m made up of MS angle of size 50mm x 50mmx 4mm alround covered with 16 gauge MS sheet and kiosk door made up of MS plates of size 25 mm x 3 mm including cutting, welding, grinding, locking arrangements and labour charges etc.,	1 No	7838.00

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

## 19.0 MS LADDER

SI No.	Description	Unit	Rate for 2018-19 in Rupees
1	Supply and Delivery and fixing of outside MS Ladder of 45cm clear wide made out of 50 mm x 50mm x 6mm MS angle for sides and steps in 16 mm MS plain rods fixed at 30cm C/C welded jointed etc., providing with suitable side supports, clamps and locking arrangements provided with two coats of approved enamel paint over one coat of redoxide paint, for providing access to roof top of OHT of suitable inclined length, including bottom anchorage and transportation and as directed by TWAD Board officers. The rate includes concrete bed block in CC 1:2:4 using 20mm HBGS at top and bottom of suitable size with necessry anchor bolts.		
	For OHT Capacities		
а	1. 10000 litres with - 7.5m staging height	Each	22695.00
b	2. 20000 litres with - 7.5m staging height	Each	22695.00
2	Fabrication, supply, delivery and fixing of outside MS Ladder of 45cm clear wide made out of 50 mm x 50mm x 6mm MS angle for both sides and for steps at 30cm C/C welded jointed etc., for I staging from GL to 1st level brace (weight 4.5kg/m) IInd and IIIrd staging upto floor slab and IVth staging from floor slab to roof top. Supply, delivery and fixing of 32 mm GI pipes medium for hand rails from I stage to IVth stage. RCC M30 Grade mix for Landing slab 5 nos. at Ground Level- 1No. and above Ground Level - 4Nos. Supply and fixing of 32mm GI pipe medium for hand rails for the Landing slab. Supplying and fixing of MS Base plate of 100mm X 100mm X 6mm thick for fixing Anchore fastener bolt for fixing of hand rails at Landing slab and MS Ladder providing locking arrangements with two coats of approved enamel paint over one coat of red oxide paint as per approved Type Design and as directed by TWAD board officers.		
	For OHT Capacities		44100-00
a	30000 litres capacity at 12.0m staging height	Each	111227.00
b	40000 litres capacity at 12.0m staging height	Each	111227.00
С	50000 litres capacity at 12.0m staging height	Each	111227.00
d	60000 litres capacity at 12.0m staging height 100000 litres capacity at 12.0m staging height	Each	111227.00
е	100000 iities capacity at 12.0111 staging height	Each	111227.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

## 20.0 MS DOOR / WINDOW/VENTILATOR

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	Supply and Delivery Fabrication of MS		
	doors and windows with outer frame		
	and shutter frame in MS angle of size		
	40mm x 40mm x 6 mm with MS flat		
	25mm x 25mm x 6mm and MS sheet of		
	18 gauge including ventilating arrange-		
	ments using 20mm square MS rods		
	with locking arrangements including		
	two coats of approved enamel paint		
	over coat of red oxide including cost		
	of angles, plates, sheets, fabrication charges, cost of hold fast and		
	transportation charges etc., complete.		
i	Fully panelled Double leaf - Door	1.00 x 2.50 m	6515.00
ii.	Fully panelled Double leaf - Door	1.00 x 2.30 m	5682.00
iii.	Fully panelled Double leaf - Door	1.00m x 2.10 m	4163.00
iv.	Fully panelled Single leaf - Door	0.75 m x 2.10 m	3479.00
	Fully panelled Single leaf - Door	0.73 m x 2.10 m	3714.00
V	, ,		
vi.	Fully panelled Single leaf - Door	0.90 m x 2.10 m	4114.00
vii	Fully panelled Single leaf - Door	1.00 m x 2.00 m	3870.00
viii	Fully panelled Double leaf - Window		
	(without Ventilator)	1.20 m x 0.90 m	3086.00
ix	Fully panelled Double leaf - Window		
	(without Ventilator)	0.60 m x 0.90 m	2253.00
х	Ventilator	0.45 m x 0.60 m	1354.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

2) GST extra applicable as per GO

# 21. WATER DISINFECTION EQUIPMENT USING SILVER - IONIZATION PROCESS

(DELETED)

21.1 REPLACEMENT ELECTRODE WATER DISINFECTION EQUIPMENT USING SILVER -IONIZATION

(DELETED)

21.2 ELECTRO CHLORINATOR BASED ON COMMON SALT

SI.No.	Capacity in litres per day	Rate for 2018-19 in Rupees.
1	50000	47301.00
2	100000	59901.00
3	150000	81001.00
4	200000	92500.00
5	250000	112001.00
6	300000	124000.00
7	350000	139147.00
8	400000	146000.00
9	450000	155000.00
10	500000	156500.00
11	1000000	383900.00
12	2000000	563600.00
13	3000000	740000.00
14	4000000	910000.00
15	5000000	1014286.00
16	6000000	1317142.00
17	7000000	1419047.00
18	8000000	1566999.00
19	900000	1739999.00
20	10000000	1972999.00

Note: 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.

## 22.0 PROVIDING EPOXY COATING TO REINFORCEMENT STEEL BARS

SI No.	Description	unit	Rate for 2018-19 in Rupees.
	Providing Fusion Bonded Epoxy coating not less than 175microns thickness and upto 300 microns to reinforcement of all diameters as per IS 13620/1993 including testing of coating at plant. The cost is inclusive of cost on account of careful handling, PVC coated binding wires, touchup material supplied by coating agency, repair work, loading, unloading and strengthening of bent rods etc., complete as per specification and as directed by the Engineer in charge.		
a.	for 8mm to 16mm	MT	13480.00
b.	for 20mm to 32mm	MT	10220.00

- 1) The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.
- 2) GST extra applicable as per GO

## 23.0 MECHANICAL JOINT COLLARS

SI No.	Description	Unit	Rate for 2018-19 in Rupees.
	Supply and Delivery of MJ		
	Collars.		
1	100mm	Each	2372.00
2	150mm	Each	3773.00
3	200mm	Each	4925.00
4	250mm	Each	6855.00
5	300mm	Each	8899.00
6	350mm	Each	12705.00
7	400mm	Each	15134.00
8	450mm	Each	17505.00
9	500mm	Each	22347.00
10	600mm	Each	28516.00

<sup>1)</sup> The above rates are basic rates inclusive of transportation charges anywhere in Tamilnadu.2) GST extra applicable as per GO

### 24.0 STAINLESS STEEL CLAMP

Supply and delivery of Leak Arresting Flexible SS Clamps of Wrap Around Single Section type upto 500 mm diameter and Maxi Range double section type beyond 500 mm OD of all rigid pipe sections. The Clamps made of stainless steel SS304 metallic body of 0.8 to 1.0mm maximum thickness pasted with Waffle gaskets of Natural / Nitrile / EPDM grade (BS EN681-1) and fitted with self stabilizing Finger type clamps of 200 mm length SG grade malleable cast iron duly powder coated (BS 2789 grade 400/12) and connected through fasteners of EN8 material with Zinc Coating (BS 970). Suitable width of the clamps to be decided by the engineer incharge at site depending on the nature of pipe crack.

			Rate for 2018-19 in Rupees.				
SI No.	Description	Unit	400 MM Width	600 MM Width	800 MM Width	1000MM Width	1200 MM Width
I	Suitable for A	C Pipes					
	Class 10						
1	100NB	1No.	4830	7935	10580	13230	15870
2	150NB	1No.	5880	9660	12880	16100	19320
3	200NB	1No.	6825	11215	14950	18690	22430
4	250NB	1No.	7718	12680	16910	21140	25360
5	300NB	1No.	8295	13630	18170	22720	27260
6	350NB	1No.	9135	15010	20010	29020	30020
7	400NB	1No.	9818	16130	21510	26890	32260
8	450NB	1No.	10920	17940	23920	29900	35880
9	500NB	1No.	12930	19400	25860	32330	38800
	Class 15						
1	100NB	1No.	5040	8280	11040	13800	16560
2	150NB	1No.	6090	10010	13340	16680	20010
3	200NB	1No.	7088	11650	15530	19410	23290
4	250NB	1No.	7928	13030	17370	21710	26050
5	300NB	1No.	8558	14060	18750	23440	28120
6	350NB	1No.	9345	15360	20470	25590	30710
7	400NB	1No.	10028	16480	21970	27460	32950
8	450NB	1No.	11235	18460	24610	30770	36920
9	500NB	1No.	13230	19850	26460	33100	39700
	Class 20						
1	100NB	1No.	5355	8800	11730	14670	17600
2	150NB	1No.	6300	10350	13800	17250	20700
3	200NB	1No.	7350	12080	16100	20130	24150
4	250NB	1No.	8190	13460	17940	22430	26910
5	300NB	1No.	8925	14670	19550	24440	29330
6	350NB	1No.	9555	15700	20930	26170	31400

			Rate for 2018-19 in Rupees.				
SI No.	Description	Unit	400 MM Width	600 MM Width	800 MM Width	1000MM Width	1200 MM Width
7	400NB	1No.	10343	17000	22670	28320	33990
8	450NB	1No.	11550	18980	23300	31630	37950
9	500NB	1No.	13450	20200	26900	33630	40350
10	600NB	1No.	-	27500	36700	45850	55000
11	700NB	1No.	-	28500	38000	47500	76000
II	Suitable for Ca	ast Iron o	r Ductile I	on Pipes			
а	Suitable for M	S/CI/DI	Pipes - Sin	gle sectior	SS Clamp		
1	4" Dia	1No.	4620	7590	10120	12650	15180
2	6" Dia	1No.	5460	8970	11960	14950	17940
3	8" Dia	1No.	6458	10610	14150	17690	21220
4	10" Dia	1No.	7455	12250	16330	20420	24500
5	12" Dia	1No.	7980	13110	17480	21850	26220
6	14" Dia	1No.	8820	14490	19320	24150	28980
7	16" Dia	1No.	9398	15440	20590	25740	30880
8	18" Dia	1No.	10238	16820	22430	28040	33640
9	20" Dia	1No.	11235	18460	24610	30770	36920
b	Suitable for M	S/CI/DI	Pipes - Dou	uble sectio	n SS Clamp	)	
1	550 NB	1No.	-	21840	33120	41400	49680
2	900 NB	1No.	-	26220	34960	43700	52440
3	650 NB	1No.	-	27140	36230	45260	54280
4	700 NB	1No.	-	28520	38070	47560	57040
5	750 NB	1No.	-	29440	39280	49110	58880
6	800 NB	1No.	-	30480	40710	50830	60950
7	850 NB	1No.	-	37950	50600	63250	75900
8	900 NB	1No.	-	39100	52160	65210	78200
9	1000 NB	1No.	-	42780	57040	71300	85560
10	1100 NB	1No.	-	51750	69000	86250	103500
11	1200 NB	1No.	-	57500	76710	95860	115000
III	Suitable for P	SC Pipes			•		
а	PSC Pipes - W	rap aroui	nd single se	ection			
1	300 NB	1No.	9240	15180	20240	25300	30360
2	350 NB	1No.	10080	16560	22080	27600	33120
3	400 NB	1No.	10920	17940	23920	29900	35880
4	450 NB	1No.	11655	19150	25530	31920	38300
5	500 NB	1No.	12600	20700	27600	34500	41400

			Rate for 2018-19 in Rupees.				
SI No.	Description	Unit	400 MM Width	600 MM Width	800 MM Width	1000MM Width	1200 MM Width
b	PSC Pipes - Do	uble sec	tion SS Cla	mp			
1	600 NB	1No.	-	28520	38070	47560	57040
2	700 NB	1No.	-	29440	39280	49110	58880
3	800 NB	1No.	-	33580	44850	56010	67160
4	900 NB	1No.	-	-	58650	73320	87930
5	1000 NB	1No.	-	-	64400	80500	96600
6	1100 NB	1No.	-	-	71300	89130	106950
7	1200 NB	1No.	-	-	80500	100630	120750
С	PSC Pipes - Maxi RangeTriple section SS Clamp						
1	1300 NB	1No.	-	-	96600	120750	144900
2	1400 NB	1No.	-	-	110000	137500	165000
3	1500 NB	1No.	-	-	124000	155000	186000
IV	Suitable for HDPE Pipes						
а	Wrap around	single se	ction SS Cla	amp			
1	110mmOD	1No.	4515	7420	9900	12380	14850
2	140mmOD	1No.	4935	8110	10820	13530	16230
3	160mmOD	1No.	5250	8690	11500	14380	17380
4	180mmOD	1No.	5775	9490	12600	15830	18890
5	200mmOD	1No.	6300	10350	13800	17250	20700
6	225mmOD	1No.	6825	11220	14960	18700	22440
7	250mmOD	1No.	7140	11730	15640	19550	23460
8	280mmOD	1No.	7613	12510	16680	20850	25020
9	315mmOD	1No.	7875	12940	17260	21575	25880
10	355mmOD	1No.	8400	13800	18400	23000	27600
11	400mmOD	1No.	8925	14670	19560	24450	29340
12	450mmOD	1No.	9975	16390	21860	27330	32780
13	500mmOD	1No.	10815	17770	23700	29630	35540
b	Maxi Range Do	ouble sec	tion SS Cla	ımp			
1	566mmOD	1No.	15120	26340	35120	43900	52680
2	1000 mm OD	1No.	-	-	60000	75000	90000

Note: 1) The above rates are basic rates

2) Transportation charges extra

III (B) RATES	FOR PUMP SETS
pump sets & Electrical E	ns for various items regarding quipments, the specifications nual for Pump sets should be

# 1.0 CENTRIFUGAL MONOBLOC PUMPSET AS PER IS 9079/1989 WITHOUT PANEL BOARD THREE PHASE

Supply and delivery of Electric Monoset centrifugal pump conforming to IS 9079:2002 as amended from time to time, with CI FG 200 Casing , hydraulically and dynamically balanced Bronze grade LTB-2 impeller, impeller ring and casing ring, stainless steel shaft capable of discharging required quantity of water against a total head noted below due to all causes. Pump shall of BEE 3 Star Rated and capable of discharging the specified quantity at the head noted at the minimum NPSH at site conditions. The shut off head shall be atleast 25% over and above the head at duty point. The pump shall be suitable for operation in AC three phase , 415 V+/- 10% , 50 Hz +/- 5%. Squirrel cage induction motor for continuous operation. The speed of the Pump and Motor shall be not less than 2700 to 2900 RPM respectively.

SI.No.	Duty Ipmxm	Unit	Rate for 2018-19 in Rupees
1	100x20	1 No	10519
2	150x20	1 No	15498
3	200x20	1 No	16104
4	250x20	1 No	17824
5	300x20	1 No	18432
6	350x20	1 No	18432
7	400x20	1 No	18432
8	450x20	1 No	18432
9	500x20	1 No	21378
10	700x20	1 No	23030
11	50x35	1 No	16726
12	100x35	1 No	19008
13	150x35	1 No	22989
14	200x35	1 No	25881
15	250x35	1 No	29082
16	300x35	1 No	29082
17	350x35	1 No	29082
18	400x35	1 No	29176
19	450x35	1 No	29176
20	500x35	1 No	29176
21	50x50	1 No	25879
22	100x50	1 No	29082
23	150x50	1 No	29082
24	200x50	1 No	31096
25	250x50	1 No	31096
26	300x50	1 No	31096

- 1) The above rates are basic rates only.
- 2) GST extra applicable as per GO
- 3) Duty of the Pumpset is the criteria for the rates.

# 2.0. SINGLE PHASE SUBMERSIBLE PUMPSET AS PER IS 8034/2002 WITHOUT PANEL BOARD

Supply and delivery of clear water vertical wet type submersible pump conforming to IS 8034/2002 and as amended thereafter and BEE 3 Star Rated capable of discharging noted LPM against head of water column due to all causes. The pump shall be with stainless steel shaft and dynamically balanced bronze or Cast SS impeller, brass screws and CI FG 200 grade pump bowl/diffuser with ISI mark. The pump shall be directly coupled to a continuos rated two pole suitable wet type vertical squirrel cage induction motor suitable for operation in AC single phase 230 V+/- 10 %, 50HZ+/-5%

SI.No.	Duty Ipmxm	Unit	Rate for 2018-19 in Rupees
1	15x40	1 No	17532
2	15x50	1 No	17532
3	15x60	1 No	18229
4	15x70	1 No	21063
5	15x80	1 No	21063
6	15x90	1 No	21063
7	15x100	1 No	24029
8	15x125	1 No	27298
9	15X150	1 No	29387
10	20x40	1 No	18229
11	20x50	1 No	18229
12	20x60	1 No	18229
13	20x70	1 No	21063
14	20x80	1 No	21063
15	20x90	1 No	21453
16	20x100	1 No	25584
17	20X125	1 No	27298
18	20X150	1 No	29216

- 1) The above rates are basic rates only.
- 2) GST extra applicable as per GO.
- 3) Duty of the Pumpset is the criteria for the rates.

# 3.0. THREE PHASE SUBMERSIBLE PUMPSET SUITABLE FOR 100MM DIA BOREWELL AS PER IS 8034/2002 WITHOUT PANEL BOARD

Supply and delivery of clear water vertical wet type submersible pump suitable for 100mm dia borewell conforming to IS 8034/2002 as amended thereafter and BEE 3 Star Rated capable of discharging noted LPM against head of water column due to all causes. The pump shall be with stainless steel shaft and dynamically balanced bronze or Cast SS impeller, brass screws and CI FG 200 grade pump bowl/diffuser with ISI mark. The pump shall be directly coupled to a continuos rated two pole suitable wet type vertical squirrel cage induction motor as per IS 9283 /1995 and as amended there after, suitable for operation in AC three phase 415 V+/- 10 %, 50 HZ +/- 5 %

SI.No.	Duty Ipmxm	Unit	Rate for 2018-19 in Rupees
1	30x40	1 No	17850
2	30x50	1 No	17955
3	30x60	1 No	18795
4	30x70	1 No	19845
5	30x80	1 No	22680
6	30x90	1 No	24675
7	30x100	1 No	24675
8	30x125	1 No	27090
9	40x40	1 No	17745
10	40x50	1 No	18690
11	40x60	1 No	18690
12	40x70	1 No	24360
13	40x80	1 No	25410
14	40x90	1 No	27405
15	40x100	1 No	27405

- 1) The above rates are basic rates only.
- 2) GST extra applicable as per GO.
- 3) Duty of the Pumpset is the criteria for the rates.

# 3.1. THREE PHASE SUBMERSIBLE PUMPSET SUITABLE FOR 150MM DIA BOREWELL AS PER IS 8034/2002 WITHOUT PANEL BOARD

Supply and delivery of clear water vertical wet type submersible pumpset suitable for 150mm dia borewell conforming to IS 8034/2002 as amended thereafter and BEE 3 Star Rated capable of discharging noted LPM against head of water column due to all causes. The pump shall be with stainless steel shaft and dynamically balanced bronze or Cast SS impeller, brass screws and CI FG 200 grade pump bowl/diffuser with ISI mark. The pump shall be directly coupled to a continuos rated two pole suitable wet type vertical squirrel cage induction motor as per IS 9283 /1995 as amended there after, suitable for operation in AC three phase 415 V+/-10%, 50HZ +/-5%

SI.No.	Duty Ipm x m	Unit	Rate for 2018-19 in Rupees
1	50x40	1 No	25007
2	50x50	1 No	27556
3	50x60	1 No	28910
4	50X75	1 No	30821
5	50×100	1 No	40271
6	50x125	1 No	40311
7	50x175	1 No	51827
8	50x200	1 No	56729
9	50x225	1 No	65415
10	50x250	1 No	73916
11	50x275	1 No	84233
12	75x40	1 No	26699
13	75x50	1 No	27556
14	75x60	1 No	28910
15	75x75	1 No	32967
16	75×100	1 No	40271
17	75x125	1 No	47041
18	75x150	1 No	50952
19	75x175	1 No	50952
20	75x200	1 No	55724
21	75x225	1 No	73785
22	75x250	1 No	77153
23	75x275	1 No	84233
24	100x30	1 No	25007

SI.No.	Duty Ipm x m	Unit	Rate for 2018-19 in Rupees
25	100x40	1 No	26699
26	100x50	1 No	29193
27	100x60	1 No	30821
28	100x75	1 No	36341
29	100×100	1 No	42974
30	100x125	1 No	49368
31	100x175	1 No	49368
32	100×200	1 No	53881
33	100x225	1 No	70173
34	100×250	1 No	79689
35	125x25	1 No	25248
36	125x40	1 No	26699
37	125x50	1 No	29012
38	125x60	1 No	32099
39	125x75	1 No	35637
40	125×100	1 No	41766
41	125x125	1 No	49386
42	125x200	1 No	65062
43	125x225	1 No	71902
44	150x25	1 No	25248
45	150x40	1 No	26699
46	150x50	1 No	27556
47	150x60	1 No	32099
48	150x75	1 No	35637
49	150×100	1 No	44847
50	150x125	1 No	46336
51	175x40	1 No	26699
52	175x50	1 No	31918
53	175x60	1 No	32826
54	175x75	1 No	32826
55	175x100	1 No	41011
56	200x25	1 No	25248
57	200x40	1 No	26699
58	200x50	1 No	32826

SI.No.	Duty Ipm x m	Unit	Rate for 2018-19 in Rupees
59	200x60	1 No	36341
60	200x75	1 No	36341
61	200x100	1 No	48834
62	200x125	1 No	55247
63	250x40	1 No	26699
64	250x50	1 No	32826
65	250x60	1 No	35728
66	250x75	1 No	43508
67	250x100	1 No	54347
68	250x125	1 No	61913
69	300x40	1 No	30884
70	300x50	1 No	36026
71	300x60	1 No	46526
72	300x75	1 No	50493
73	300×100	1 No	57337
74	350x40	1 No	34119
75	350x50	1 No	37962
76	350x60	1 No	48525
77	350x75	1 No	54347
78	350×100	1 No	63200
79	400x40	1 No	41118
80	400x50	1 No	48069
81	400×60	1 No	49979
82	400x75	1 No	62587
83	500x40	1 No	42599
84	500x50	1 No	49979
85	500x75	1 No	66603
86	600x40	1 No	44065
87	600x50	1 No	59383
88	600×75	1 No	68419

- 1) The above rates are basic rates only.
- 2) GST extra applicable as per GO.
- 3) Duty of the Pumpset is the criteria for the rates.

# 4.0 OPENWELL SUBMERSIBLE PUMPSET AS PER IS 14220/2002 WITHOUT PANEL BOARD

Supply and delivery of Open well Submersible pump set conforming to IS  $14220\ / 2002$  and as amended thereafter and BEE 3 Star Rated capable of discharging the following duties due to all causes. The pump shall be with stainless steel shaft and dynamically balanced bronze mixed type impeller, CI FG 200 grade casing and brass screws and rotor shall be of copper rod as per IS 613/1984 with ISI mark. The pump suitable for installation in sump with  $1.1 \, \text{KV}$  grade 3 core suitable copper flat submersible cable to a length of  $15 \, \text{m}$  with necessary cable joints. The non-return valve located at the top of the pump in the discharge outlet connection is to be designed with minimum friction. The pump should be directly coupled to  $2880 \, \text{RPM}$ , three phase,  $50 \, \text{Hz}$  ( $\pm 5$ ),  $415 \, \text{V} + 6\% \, \& \, 415 \, \text{V} - 15\%$  squirrel cage induction motor suitable for DOL upto  $5 \, \text{HP}$ , Fully Automatic Air break Star Delta up to  $20 \, \text{HP}$  and Auto Transformer starter for above  $20 \, \text{HP}$  starting and for continuous operation.

SI.No.	Duty Ipm x m	Unit	Rate for 2018-19 in Rupees
1	50x25	1 No	21732
2	50x40	1 No	21763
3	50x50	1 No	25806
4	50x60	1 No	32276
5	50x75	1 No	46872
6	50x100	1 No	47426
7	50x125	1 No	69722
8	75x25	1 No	21763
9	75x40	1 No	24726
10	75x50	1 No	27647
11	75x60	1 No	32276
12	75x75	1 No	46872
13	75x100	1 No	47429
14	75x125	1 No	65260
15	75x150	1 No	87971
16	100x25	1 No	23523
17	100x40	1 No	27647
18	100x50	1 No	29062
19	100x60	1 No	46873
20	100x75	1 No	47427
21	100x100	1 No	47427
22	100x125	1 No	69827

SI.No.	Duty Ipm x m	Unit	Rate for 2018-19 in Rupees
23	125x25	1 No	24716
24	125x40	1 No	29062
25	125x50	1 No	35956
26	125x75	1 No	46873
27	125x100	1 No	47427
28	125x125	1 No	69827
29	150x25	1 No	24716
30	150x40	1 No	29062
31	150x50	1 No	29062
32	150x60	1 No	46872
33	150x75	1 No	46872
34	150×100	1 No	47429
35	150x125	1 No	79418
36	175x25	1 No	24716
37	175x40	1 No	29062
38	175x50	1 No	35956
39	175x60	1 No	46873
40	175x75	1 No	46873
41	175x100	1 No	60440
42	200x25	1 No	24716
43	200x40	1 No	29062
44	200x50	1 No	29062
45	200x60	1 No	46873
46	200x75	1 No	49456
47	200x100	1 No	60440
48	200x125	1 No	93994
49	250x25	1 No	24716
50	250x40	1 No	29062
51	250x50	1 No	35956
52	250x60	1 No	46873
53	250x75	1 No	60440
54	250x100	1 No	64014

SI.No.	Duty Ipm x m	Unit	Rate for 2018-19 in Rupees
55	250x125	1 No	83389
56	300x25	1 No	24716
57	300x40	1 No	29062
58	300x50	1 No	35956
59	300x60	1 No	49456
60	300x75	1 No	60440
61	300x100	1 No	64014
62	350x25	1 No	29062
63	350x40	1 No	42226
64	350x50	1 No	42522
65	350x60	1 No	49456
66	350x75	1 No	60440
67	350x100	1 No	64014
68	400x25	1 No	29062
69	400x40	1 No	42394
70	400x50	1 No	42522
71	400x60	1 No	50855
72	400x75	1 No	64014
73	500x25	1 No	29062
74	500x40	1 No	42394
75	500x50	1 No	42522
76	500x75	1 No	64014
77	600x25	1 No	29615
78	600x40	1 No	43331
79	600x50	1 No	51823
80	600x75	1 No	65233
81	700x40	1 No	48431
82	700x60	1 No	65233
83	700x80	1 No	65233
84	700×100	1 No	65233
85	800x40	1 No	48431
86	800x60	1 No	65233

SI.No.	Duty Ipm x m	Unit	Rate for 2018-19 in Rupees
87	800x80	1 No	65233
88	800x100	1 No	65233
89	900x40	1 No	65233
90	900x60	1 No	65233
91	900x80	1 No	65233
92	900x100	1 No	65233
93	1000x40	1 No	77532
94	1000x60	1 No	77532
95	1000x80	1 No	87383
96	1000×100	1 No	140100
97	1250x40	1 No	83518
98	1250x60	1 No	106652
99	1250x80	1 No	155572
100	1250×100	1 No	155572
101	1500x40	1 No	95839
102	1500x60	1 No	137804
103	1500x80	1 No	161055
104	1500×100	1 No	215162
105	2000x40	1 No	119388
106	2000x60	1 No	161055
107	2000x80	1 No	161055
108	2000x100	1 No	161055
109	2500x40	1 No	161055
110	2500x60	1 No	161055
111	2500x80	1 No	161055
112	2500x100	1 No	161055

- 1) The above rates are basic rates only.
- 2) GST extra applicable as per GO.
- 3) Duty of the Pumpset is the criteria for the rates.

# 5.0.RATES FOR HORI ZONTAL SPLIT CASI NG CENTRI FUGAL PUMP (1500 RPM) conforming to 1S 1520

other standard fittings etc complete. Pump shall be capable of discharging the specified quantity at the head noted at the minimum NPSH at site conditions. The shut off head shall be atleast 25% over and above the head at duty point. The pump Supply and delivery of Horizontal split casing centrifugal pump conforming to IS 1520 with CI casing and split glands, stainless a total head noted below due to all causes and with the accessories such as G.M air release cock, Grease cup, G.I priming funnel, M.S lifting hook, drip water G.I pipe connections, leading to the outside of pump house rubber water deflector, double flap foot valve, G.M strainer including unique tyre type coupling, common M.S fabricated base to mount pump and motor and steel shaft, hydraulically and dynamically balanced bronze impellers capable of discharging required quantity of water against shall be suitable for operation in AC three phase , 415 V , 50 Hz , 1500 RPM.

			Rat	e for 20	Rate for 2018-19 in Rupees	Rupee	Š			Rs. i	Rs. in Lakhs.	
SI.No.	Capacity in LPM					He	Head in Metres	tres				
		25	30	35	40	45	20	22	09	70	08	06
1	1500	3.05	2.91	3.54	3.59	3.62	4.36	4.62	4.63	4.93	4.93	5.49
2	2500	3.05	3.05	3.63	3.74	4.46	4.46	4.69	4.96	5.54	5.74	5.74
3	3000	3.05	3.05	3.82	3.87	4.69	4.69	4.46	4.96	5.92	5.92	5.97
4	3500	3.05	3.05	3.82	3.87	4.69	5.36	5.78	80'9	6.32	6.32	6.32
2	4000	3.53	3.53	3.87	3.87	4.75	5.42	6.03	6.18	6.32	6.32	6.32
9	2000	3.86	3.86	3.96	4.08	5.52	5.75	6.29	6.51	6.71	6.75	92'9
7	0009	3.86	3.86	5.35	5.47	5.80	6.20	6.57	7.30	7.64	7.78	8.04
8	2000	4.93	5.24	5.42	5.63	6.07	6.32	6.79	7.45	7.68	8.58	8.75
6	8000	5.07	5.24	5.47	6.03	6.32	6.65	6.79	7.12	11.11	11.38	11.94
10	0006	2.07	5.45	5.61	6.32	6.51	6.65	62'9	68'9	11.64	12.75	13.73
11	10000	2.07	5.45	2.68	6.35	6.67	6.94	6.94	12.03	15.38	16.03	16.13
12	15000	6.24	6.45	6.26	7.71	8.09	8.52	10.03	13.30	16.01	16.01	16.13
13	20000	6.85	86.9	66.9	13.55	13.92	15.28	17.44	17.44	17.81	17.91	18.40
14	25000	16.41	16.67	17.14	17.38	17.82	17.84	17.84	17.84	18.40	18.79	18.73
15	30000	17.75	18.42	19.29	19.58	19.76	20.33	20.26	23.14	26.12	27.07	27.83

The above rates are basic rates inclusive of MS base plate, flexible tyre coupling and foundation bolts. Note:

GST extra applicable as per GO

Efficiency may be taken from universal curve for calculation of motor HP, otherwise manufacturers may be consulted or efficiency curve. 3 3 7

NPSH requirement should be assessed and sump should be designed accordingly. 4

# 6.0. HORIZONTAL SQUIRREL CAGE MOTOR 1500 RPM

# AC three Phase /415 V/ Horizontal SPDP 4 Pole Squirrel cage Induction motor for HSC Centrifugal pumps

Supply and delivery of AC three Phase 4 pole Horizontal squirrel cage Induction motor confirming to IS 325/1996 and as amended thereafter with Class F insulation to suit the speed of pump and suitable for operation with continous S1 rated, 415V +/- 10 %, 50 HZ +/- 5% supply , TEFC (upto 20 HP), SPDP (above 20 HP). The motor offered should be of energy efficient motors.

SI.No	KW	HP	Rate for 2018-19 in Rupees
1	9.3	12.5	86333
2	11	15	91653
3	15	20	107949
4	18.5	25	147457
5	22	30	161933
6	30	40	183260
7	37	50	229686
8	45	60	277826
9	55	75	283592
10	75	110	430677
11	90	120	453749
12	110	150	566159
13	125	170	728690
14	132	180	770988
15	150	200	777718
16	160	215	847895
17	180	240	847895
18	187	250	882503
19	200	270	947873
20	220	300	1245887
21	250	335	1418535
22	280	375	1957272
23	300	400	2259131

Note: 1) The above rates are basic rates inclusive of handling charges.

# 7.0. HORIZONTAL SQUIRREL CAGE MOTOR 1000 RPM

# AC three Phase /415 V/ Horizontal SPDP 6 Pole Squirrel cage Induction motor for HSC Centrifugal pumps

Supply and delivery of AC three Phase 6 pole Horizontal squirrel cage Induction motor confirming to IS 325/1996 and as amended thereafter with Class F insulation to suit the speed of pump and suitable for operation with continous S1 rated, 415 V +/- 10 %, 50 HZ +/- 5% supply , TEFC (upto 20 HP), SPDP (above 20 HP). The motor offered should be of energy efficient motors.

SI.No	KW	HP	Rate for 2018-19 in Rupees
1	9.3	12.5	83771
2	11	15	88027
3	15	20	124060
4	18.5	25	146512
5	22	30	188584
6	30	40	235230
7	37	50	294024
8	45	60	362205
9	55	75	414964
10	75	110	498079
11	90	120	564992
12	110	150	725909
13	125	170	863676
14	132	180	863676
15	150	200	921927
16	160	215	994264
17	180	240	1391463
18	187	250	1413719
19	200	270	1530173
20	220	300	1755696
21	250	335	1965506

Note: 1) The above rates are basic rates inclusive of handling charges.

# VERTICAL TURBINE PUMP (WATER LUBRICATED) CONFIRMING TO IS1710/1989 (REAFFIRMED 2009) 1500 RPM SUITABLE FOR VERTICAL HOLLOW SHAFT SQUIRREL CAGE 8.0

as amended thereafter to suit the site condition. The speed, Number of stages, sizes of column pipes and line reversible ratchet pin housing safety clutch, suction strainer etc. The Pump Bowl assembly shall be with bronze Supply and delivery of Vertical water/oil Iubricated statically, dynamically, hydraulically balanced turbine pump capable of discharging the following duty condition as given below due to all causes with surface discharge head confirming to IS 1710 and as amended as on date with accessories  $\,$  as per IS 5120/1977 ( Reaffirmed 2011 ) and shaft indicated is based on site condition prevailing during investigation. The pump should be supplied with non impeller running at 1450 RPM. The pump includes suitable head shaft, suitable 1.5 metre long SS line shaft required Nos. to suit the well depth, Rubber line shaft bearing of required Nos., C.I Bearing retainer of required Nos., 100 litre HDPE Pre- lubricating tank with 20mm PVC Rigid pipe connection along with GM gate valves, Suitable ERW column pipe of each 1.5m long of required Nos. to suit the well depth, Suction bell mouth of suitable size, clamps suitable for column pipe/line shaft -2 set and Spanner - 1 set etc complete

		Rate	€ for 20	18-19 ir	Rate for 2018-19 in Rupees	(5)				Rs. ir	Rs. in Lakhs.
SI.No.	Capacity in LPM					He	<b>Head in Metres</b>	tres			
		15m	20m	30m	40m	50m	60m	70m	80m	90m	100m
П	1500	3.00	3.00	3.20	3.20	3.32	3.41	3.60	3.60	3.99	4.19
2	2000	00'9	6.35	7.10	7.88	8.78	9.42	9.77	9.97	10.17	10.88
ĸ	3000	7.75	7.92	8.40	9.34	10.34	10.76	11.18	11.18	11.18	11.24
4	4000	8.48	8.77	10.90	11.08	11.24	11.24	11.59	12.34	12.69	12.69
2	2000	10.24	10.54	11.08	11.84	12.22	12.52	13.04	13.25	13.43	13.80
9	0009	10.54	10.54	11.23	11.80	12.52	12.52	13.04	13.25	13.44	13.80
7	7000	10.54	10.54	11.23	11.80	12.52	12.52	13.44	13.44	13.44	13.80
8	8000	11.23	11.45	11.80	12.35	12.69	12.69	13.44	13.44	13.44	13.80
6	10000	11.23	11.45	11.90	12.35	12.69	13.04	13.44	13.44	13.80	13.80
10	15000	12.31	12.59	12.69	13.04	13.82	13.80	14.14	14.89	15.23	15.58
11	20000	14.01	14.46	15.05	15.61	16.00	17.89	19.67	20.05	23.11	27.83
12	25000	14.50	14.86	15.42	15.90	16.37	18.23	20.05	20.52	23.58	28.68
13	30000	25.68	26.89	27.88	29.76	30.05	31.65	32.03	35.61	36.05	39.86

1) The above rates are basic rates inclusive of transportation and handling charges Note:

Multiply with 1.15 for oil lubricated pumps (for raw water) 2) GST extra applicable as per GO 3) Multiply with 1.15 for oil lubrica

Rates given are with suspension length of 7m, bronze impeller, SS 401 shaft, MS column pipe, discharge case & CI bell mouth. 4

5) Add 7.5% extra for each  $1.5\,\mathrm{m}$  length column pipe assembly in the above rate.

### 9.0 VERTICAL HOLLOW / SOLID SHAFT MOTORS FOR TURBINE PUMP

# AC three Phase /415 V/ Vertical Hollow / Solid Shaft TEFC & SPDP 4 Pole Squirrel cage Induction Motor 1500RPM

Supply and delivery of vertical Hollow / Solid shaft Squirrel cage induction motor (IS 325 ) suitable for the above pump continuous rated TEFC/SPDP type with Class 'F' insulation for operation in AC, three Phase/50 HZ ( $\pm 5\%$ ), 415V ( $\pm 10\%$ ) running with a speed of pump noted above and with inbuilt thrust bearing assembly capable of taking up the entire load and non - reverse ratchet assembly etc., complete. The motor rating noted above is the minimum and shall be such that it should never be over loaded when the pump works at MWL condition and shall be 10% over and above the maximum HP absorbed by the pump. The motor offered should be energy efficient motors to have maximum efficiency at high power factor. Separate thrust bearing assembly could also be supplied to take up the down load.

SI.No	KW	HP	Rate for 2018-19 in Rupees
	TEFC MOTORS		
1	18.5	25	105820
2	22	30	116404
3	30	40	134672
4	37	50	176273
5	45	60	212974
	SPDP MOTORS		
6	55	75	333445
7	75	100	439971
8	90	120	458867
9	110	150	591302
10	125	170	611078
11	132	180	685238
12	150	200	771952
13	160	215	927493
14	180	240	967045
15	187	250	973967
16	200	270	1077791
17	220	300	1127231
18	250	335	1206335
19	280	375	1409776
20	300	400	1598221
21	380	520	1765332
22	400	540	2088887

- 1) The above rates are basic rates inclusive of handling charges.
- 2) GST extra applicable as per GO

# 10.0 Iron core Oil Cooled Transformer with Copper Winding Conforming to IS 2026

Supply and delivery of 11 KV/433 Volts, 22 KV/433 Volts and 11 /22 KV/433 Volts, three Phase 50 Hz double wound oil immersed natural air cooled, core type continous rating, outdoor distribution power transformer with copper winding for voltage ratio 22-11 KV/433 volts between phases with neutral brought out at LV side. The transfer shall be contained in a mild steel plain & radiator cooled tank, conforming to IS 2026 with off-load tap switch for  $\pm 10\%$  on LV side and  $\pm 5\%$  on H.V.side. The transformer shall be supplied with first filling of oil and consisting of all the fittings and accessories such as Inspection cover,Oil level indicator with minimum and filling level markings, Externally operated off circuit tap changing switch with locking device & keys, H.V. Terminals- Bushings, L.V. Terminals cable box Rating plate, Two earthing terminals, two lifting hooks etc complete as per IS 2026/2011 and as amended thereafter.

SI.No	Rating in KVA	Rate	for 2018-19 in	Rupees
	3	11KV/433V	22 KV/433 V	11KV/22KV
				/433V
1	63	138432	147084	164388
2	100	159600	168000	184800
3	150	283208	299936	344926
4	160	233604	255234	276864
5	200	259560	255234	276864
6	250	319200	363384	389340
7	315	372036	397992	432600
8	400	415296	458556	501816
9	500	478800	515199	571199
10	630	537599	571199	638399
11	750	638399	660800	789599
12	800	660800	688799	826559
13	1000	739199	772799	927359

Note: 1) The above rates are basic rates inclusive of transportation and handling charges.

### 11.0. SINGLE PHASE PANEL BOARD WITH TWO LEVEL GUARD AND AUTO START

Supply and delivery of direct online starter confirming to IS13947, IEC60947-1 suitable KW rating for operation in AC/single Phase/50Hz( $\pm$ 5%) and 230 V( $\pm$ 10%) including Ammeter, Voltmeter, Thermal Overload relay, 16 amps 2 pole Magnetic Contactor with under Voltage protection, Indication lamp, starting capacitor, running capacitor and On/Off Push button switches, 5 way connector, wiring with 1 sq. mm/1.5 sq. mm copper PVC insulated cable, powder coated vermin proof box including the capacitor (the cost of capacitor is to be taken separately).

SI. No.	HP	Unit	Rate for 2018-19 in Rupees
1	1	1 No.	5280.00
2	1.5	1 No	5500.00
3	2	1 No	6376.00

Note: 1)

- 1) The rate are basic rates inclusive of two level guard worth Rs.550/- and auto start facility worth Rs. 400/-
- 2) Timer is not recommended for this panel board.
- 3) Panel board should be provided as per specification given in Board circular No. 23/DCE/QATA/2004/Dt. 23.8.2004
- 4) GST extra applicable as per GO

### 11.1. THREE PHASE PANEL BOARD-D.O.L. WITH TWO LEVEL GUARD AND AUTO START

Supply and delivery of direct online starter confirming to IS13947, IEC 60947-1 suitable KW rating for operation in AC/three Phase/50HZ( $\pm$ 5%) and 415 V( $\pm$ 10%) including Ammeter, Voltmeter, Thermal Overload relay, 16 amps 2 pole Magnetic Contactor with under Voltage protection, Indication lamp, starting capacitor, running capacitor and On/Off Push button switches, 5 way connector, wiring with 1 sq. mm/1.5 sq. mm copper PVC insulated cable, powder coated vermin proof box including the capacitor (the cost of capacitor is to be taken separately).

SI. No.	HP	Unit	Rate for 2018-19 in Rupees
1	1	1 No.	12387.00
2	2	1 No	12387.00
3	3	1 No	12650.00
4	4	1 No.	12650.00
5	5	1 No	13006.00
6	6	1 No	13006.00

Note: 1) The rate are basic rates inclusive of two level guard worth Rs.550/- and auto start facility worth Rs. 400/-

- 2) For Timer facility if necessory Rs. 4000 may be added as extra.
- 3) Panel board should be provided as per specification given in Board circular No. 23/DCE/QATA/2004/Dt. 23.8.2004
- 4) GST extra applicable as per GO

# 11.2 THREE PHASE PANEL BOARD-STAR DELTA WITH TWO LEVEL GUARD AND AUTO START

Supply and delivery of Star-Delta starter confirming to IS13947, IEC 60947-1 suitable KW rating for operation in AC/ three Phase/50Hz (+/- 5%) and 415V (+/- 10%) including 3 pole magnetic contactor with under voltage release - 3 nos., CT operated Ammeter(65 mm dia) with suppressed scale, Voltmeter (65mm dia), Voltmeter selector switch, Miniature circuit breaker, Thermal Overload relay, Air Break contactors suitable for next Standard higher KW rating, Single phasing preventor, dry running preventor and On/Off Push button switches, wiring with 1 sq.mm/4 sq. mm copper pvc insulated cable, powder coated vermin proof box, including the capacitor(the cost of capacitor is to be taken separately).

SI. No.	HP	Unit	Rate for 2018-19 in Rupees
1	6	1 No.	15575
2	7.5	1 No	16352
3	10	1 No	19807
4	12.5	1 No.	20633
5	15	1 No	21483
6	20	1 No	21483
7	25	1 No	21483

Note: 1) The rate are basic rates inclusive of two level guard worth Rs.550/- and auto start facility worth Rs. 400/-

- 2) For Timer facility if necessory Rs. 4000 may be added as extra.
- 3) Panel board should be provided as per specification given in Board circular No. 23/DCE/QATA/2004/Dt. 23.8.2004
- 4) GST extra applicable as per GO

# 11.3 DOL STARTER WITH SINGLE PHASING PREVENTOR WITH ANALOG AMMETER AND VOLTMETER CONFORMING TO IS13947, IEC60947-1 WITH AUTO RESTART FACILITY FOR PUMP HOUSES WHERE PANEL BOARDS ARE AVAILABLE

Supply and delivery of direct online starter confirming to IS13947, ICE 60947-1 suitable KW rating for operation in AC/ three Phase/50HZ(+/- 5%) and 415V (+/- 10%) including Ammeter, Overload relay, under Voltage release with no Volt coil, Air Break contactors suitable for next Standard higher KW rating, Single phase preventor, dry running preventor and On/Off Push button switches, including the capacitor(the cost of capacitor is to be taken separately).

Upto 5 HP - Rs. 4711/- each.

Note: 1) The above rate is basic rate only.

# 11.4 FLEX COMPENSATED MAGNETIC AMPLIFIER SOFT STARTER SUITABLE FOR L.T.SQUIRREL CAGE MOTOR

Supply and delivery of floor mounted type FCMA Air/ Oil Cooled soft starter suitable for the LT motor offered for operation in AC three Phase 50Hz (+/- 5%), 415V(+/-10%) including line contactors suitable for next standard higher KW rating, Over load relay, instrument panel with frequency meter, Ammeter, Voltmeter, indicating lamp 6Nos, LED ON/OFF type and Start / Stop push button.

SI. No.	KW	Unit	Rate for 2018-19 in Rupees
1	30 to 37	1 No	171498.00
2	38 to 75	1 No	305760.00
3	76 to 135	1 No	426297.00
4	136 to 160	1 No	482160.00
5	161 to 250	1 No	720301.00
6	251 to 300	1 No	844760.00
7	301 to 500	1 No	1188044.00
8	501 to 750	1 No	1557220.00

Note: 1) The above rates are basic rates only

- 2) DOL starters are to be adopted up to 6 HP
- 3) Air break fully automatic star delta starters are suggested for above 6 HP upto 20HP except submersible pumpsets for which fully automatic ATS starters are to be adopted
- 4) FCMA soft starter are to be adopted for 100 HP and above.
- 5) GST extra applicable as per GO

# 11.5 FLEX COMPENSATED MAGNETIC AMPLIFIER SOFT STARTER SUITABLE FOR H.T.SQUIRREL CAGE MOTOR

Supply and delivery of suitable KW indoor automatic air cooled dust and vermin proof FCMA Soft Starter for the operation in 3.3 KV three Phase 50 Hz, AC supply termination with phase segregated neutral terminal box of the motor , housed in 14 SWG sheet steel enclosure, painted with epoxy or polyurethene , 230V AC 10 Amps control supply , Class B insulation, 300 mm height fabricated pedastal (to prevent water ingress for starter panel) and condensation heater with switch with thermostat, interlocking with running motor with built in facility for run mode/by pass etc. complete. The starter may be provided with contactors suitable for next standard higher KW rating, Over load relay, instrument panel with frequency meter, Ammeter, Voltmeter, indicating lamp 6 Nos, LED ON/OFF type and Start / Stop push button.

SI. No.	KW	Unit	Rate for 2018-19 in Rupees
1	250	1 No	701644.00
2	300	1 No	739039.00
3	350	1 No	794444.00
4	400	1 No	831545.00
5	500	1 No	867937.00
6	600	1 No	976079.00
7	700	1 No	1074088.00
8	800	1 No	1200497.00
9	900	1 No	1302417.00
10	1000	1 No	1424687.00

Note: 1) The above rates are basic rates only

- 2) DOL starters are to be adopted up to 6 HP
- 3) Air break fully automatic star delta starters are suggested for above 6 HP upto 20HP except submersible pumpsets for which fully automatic ATS starters are to be adopted
- 4) FCMA soft starter are to be adopted for 100 HP and above.
- 5) GST extra applicable as per GO

# 11.6 FULLY AUTOMATIC AIR BREAK STAR DELTA STARTER WITH SINGLE PHASE PREVENTOR WITH AMMETER CONFIRMING TO 1S13947, IEC 60947-1 WITH AUTO RESTART FACILITY FOR PUMP HOUSES WHERE PANEL BOARDS ARE AVAILABLE

Supply and delivery of Star-Delta starter where panel boards are available confirming to IS13947, IEC 60947-1 suitable KW rating for operation in AC/three Phase/50Hz(+/- 5%) and 415V (+/-10%) including 3 pole magnetic contactor with under voltage release - 3 Nos., CT operated Ammeter(65 mm dia) with suppressed scale, Voltmeter (65mm dia), Voltmeter selector switch, Minature circuit breaker, Thermal Overload relay, Air Break contactors suitable for next Standard higher KW rating, Single phasing preventor, dry running preventor and On/Off Push button switches, wiring with 1 sq.mm/4 sq. mm copper pvc insulated cable, powder coated vermin proof box, including the capacitor(the cost of capacitor is to be taken separately).

SI. No.	KW Rating	HP	Unit	Rate for 2018-19 in Rupees
1	7.5	10	1 No	15658
2	11	15	1 No	15658
3	15	20	1 No	16884
4	18.5	25	1 No	16884
5	22	30	1 No	27556
6	30	40	1 No	31565
7	37	50	1 No	35998

Note: 1) The above rates are basic rates inclusive of handling charges.

# 11.7 FULLY AUTOMATIC AIR BREAK AUTO TRANSFORMER STARTER WITH SINGLE PHASING PREVENTOR WITH AMMETER CONFIRMING TO IS 8544 PART IV WITH AUTO RESTART FACILITY

Supply and delivery of Fully Automatic Auto Transformer Starter suitable for the motor offered. Floor mounting type  $\,$  air/ oil cooled Auto Transformer Starter with tapings at 50%, 65%, 80%, housed in robust steel chamber with arc and main contacts confirming to IS 8544 Part IV for operation in AC three Phase 50 Hz (+/- 5%), 415V (+/- 10%) with the following components etc. under voltage release with no volt coil, over load relay with dash pot arrangements, single phasing preventor, LED ON/ OFF switches, Mounted Ammeter, Earth leakage relay, contactor assembly suitable for next standard KW rating, incoming and outgoing cable entry provisions, transformer tank including first filling of oil etc.

SI.No.	KW Rating	HP	Unit	Rate for 2018-19 in Rupees
1	5.5	7.5	1 No	27195
2	7.5	10	1 No	27195
3	9	12.5	1 No	31282
4	11	15	1 No	32586
5	15	20	1 No	65171
6	22	30	1 No	83300
7	30	40	1 No	93707
8	37	50	1 No	108093
9	45	60	1 No	120638
10	60	80	1 No	166857
11	75	100	1 No	182801

Note: 1) The above rates are basic rates inclusive of handling charges.

12.0. L.T. CABLES 3,3.5,4 CORE 1.1 KV GRADE ARMOURED ALUMINIUM CONDUCTOR CROSS LINKED POLY ETHYLENE INSULATED PVC SHEATHED CABLES CONFIRMING TO IS 7098 (PART I)/1988 WITH ISI MARKING

SI.No	Description	Unit	Rate	Rupees	
31.110	Description	Onne	3 Core	3.5 Core	4 Core
1	4 sq.mm	metre	71.50	_	145.00
2	6 sq.mm	metre	87.00	_	153.00
3	10 sq.mm	metre	98.00	_	168.00
4	16 sq.mm	metre	103.00	_	219.00
5	25 sq.mm	metre	129.00	267.75	_
6	35 sq.mm	metre	158.00	315.00	_
7	50 sq.mm	metre	210.00	411.60	_
8	70 sq.mm	metre	277.00	527.10	_
9	95 sq.mm	metre	362.00	680.40	_
10	120 sq.mm	metre	436.00	832.65	_
11	150 sq.mm	metre	531.00	985.95	_
12	185 sq.mm	metre	655.00	1208.55	_
13	240 sq.mm	metre	827.00	1525.65	_
14	300 sq.mm	metre	1004.00	1872.15	_
15	400 sq.mm	metre	1285.00	2395.05	_

- 1) The above rates are basic rates only.
- 2) GST extra applicable as per GO

# 12.1. PVC INSULATED AND SHEATHED 3 CORE FLAT TYPE COPPER CABLE CONFIRMING TO IS 694/1990

SI.No	Description	Unit	Rate for 2018-19 in Rupees
1	1.5 sq.mm	meter	69
2	2.5 sq.mm	meter	108
3	4.0 sq.mm	meter	161
4	6.0 sq.mm	meter	217
5	10.0 sq.mm	meter	375
6	16.0 sq.mm	meter	583
7	25.0 sq.mm	meter	798
8	35.0 sq.mm	meter	1169
9	50.0 sq.mm	meter	1638
10	70.0 sq.mm	meter	2415
11	95.0 sq.mm	meter	2940

- 1) The above rates are basic rates only.
- 2) GST extra applicable as per GO

# 12.2 RATE FOR CABLE JOINTS INCLUDING JOINTING MATERIALS AND LABOUR

# I. JOINTING OF L.T.CABLES - 3,3.5,4 CORE 1.1 KV GRADE ARMOURED ALUMINIUM CONDUCTOR CABLE CONFIRMING TO IS 1554 PART I WITH ISI MARKING

SI.No	Description	Unit	Rate	for 2018-19 in	Rupees
31.140			3 Core	3.5 Core	4 Core
1	4 sq.mm	metre	75.50	-	152.00
2	6 sq.mm	metre	91.00	-	160.00
3	10 sq.mm	metre	103.00	-	176.00
4	16 sq.mm	metre	108.00		231.00
5	25 sq.mm	metre	134.00	280.00	_
6	35 sq.mm	metre	166.00	330.00	_
7	50 sq.mm	metre	219.00	430.00	_
8	70 sq.mm	metre	290.00	552.00	_
9	95 sq.mm	metre	380.00	714.00	_
10	120 sq.mm	metre	457.00	873.00	_
11	150 sq.mm	metre	558.00	1032.00	_
12	185 sq.mm	metre	687.00	1266.00	_
13	240 sq.mm	metre	866.00	1599.00	_
14	300 sq.mm	metre	1052.00	1961.00	
15	400 sq.mm	metre	1346.00	2510.00	_

# II. JOINTING OF XLPE INSULATED AND SHEATHED 3 CORE FLAT TYPE COPPER CABLE CONFIRMING TO IS 694/1990

SI.No	Description	Unit	Rate for 2018-19 in Rupees
1	1.5 sq.mm	meter	74.50
2	2.5 sq.mm	meter	118.00
3	4.0 sq.mm	meter	175.00
4	6.0 sq.mm	meter	235.00
5	10.0 sq.mm	meter	410.00
6	16.0 sq.mm	meter	634.00
7	25.0 sq.mm	meter	834.00
8	35.0 sq.mm	meter	1220.00
9	50.0 sq.mm	meter	1712.00
10	70.0 sq.mm	meter	2523.00
11	95.0 sq.mm	meter	3071.00

# III. JOINTING OF HT CABLE -XLPE INSULATED ARMOURED ALUMINIUM CONDUCTOR CABLE

SI.No	Description	Unit	Rate for 2018-19 in Rupees	
	-		11KV	12KV
1	3 C 240 sq.mm	metre	1313.00	1604.00
2	3 C 185 sq.mm	metre	1094.00	1357.00
3	3 C 150 sq.mm	metre	928.00	1206.00
4	3 C 120 sq.mm	metre	825.00	1084.00
5	3 C 95 sq.mm	metre	700.00	982.00
6	3 C 70 sq.mm	metre	627.00	865.00

# 12.3 CABLE LAYING

		Rate for 2018	-19 in Rupees
SI.No	Description	For laying below GL including earth work in Rupees	For laying in trenches inside the pump room or in air
1	up to 95 sq.mm	144.00	93.50
2	95 to 240 sq.mm	204.00	141.00
3	240 to 400 sq.mm	295.00	232.00

# 12.4 CABLE CLAMPS

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	up to 95 sq.mm	each	297.00
2	95 to 240 sq.mm	each	369.00
3	240 to 400 sq.mm	each	546.00

NOTE: 1) The above rates are basic rates only.

- 2) GST extra applicable as per GO
- 3) For every 3 metre length one set of clamp is to be provided
- 4) Suitable number of clamps are to be arrived at according to the length
- 5) Provision for cable trench and delivery pipe duct are to be provided in pump house detailed estimate.

H.T. CABLE

12.5. PVC INSULATED ARMOURED ALUMINIUM CONDUCTOR CABLE

SI.No	Description	Unit	Rate for 2018	-19 in Rupees
	•		11KV	12KV
1	3 C 240 sq.mm	metre	1253	1531
2	3 C 185 sq.mm	metre	1044	1295
3	3 C 150 sq.mm	metre	886	1151
4	3 C 120 sq.mm	metre	786	1034
5	3 C 95 sq.mm	metre	668	938
6	3 C 70 sq.mm	metre	598	825

Note:

- 1) The above rates are basic rates only.
- 2) GST extra applicable as per GO.

# 13.0 VACCUM PUMP SET WITH ACCESSORIES

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
1	Price for 5 HP Model/Rotary type Vaccum pumpsets (Pumpset + GI Pipes + Fittings + Starters + Valves + 100 Lr.Tank) including Transportation and handling charges.	1 No	357699.00
2	Price for 10 HP Vaccum pumpset with all the above Accessories	1 No	461999.00
3	150mm dia Pressure Gauge and Vaccum guage including all accessories as per specification (For Suction and Delivery to be mounted on wall on Teak Wood Board)	1 No	6399.00

NOTE: 1) The above rates are basic rates only.

# 14.0 MOULDED CASE CIRCUIT BREAKER (MCCB) WITH THERMO MAGNETIC RELEASE

SI.No.	Range	Rate for 2018-19 in Rupees		
		3POLE	4 POLE	
1	32-100	9800	12133	
2	125	13533	14933	
3	160	16352	19600	
4	200	28000	31061	
5	250	28000	32668	
6	320	35861	41523	
7	400	37771	43400	
8	630	41770	50333	
9	800	56624	75447	
10	1000	88059	113248	
11	1250	99372	137199	
12	1600	113190	170799	

NOTE:

- 1) The above rates are basic rates inclusive of handling charges and F.O.R destination.
- 2) GST extra applicable as per GO
- 3) The rate for MCB for single phase usage the PWD schedule of rates shall be referred.
- 4) Add 35% cost of MCCB/ACB/ MCB towards the cost of fabrication other fittings and labour
- 5) Upto 15 KW distribution box shall be used. For more than one outgoing loads PWD schedule of rates shall be referred.

# 15.0 RATE FOR MIXED DI ELECTRIC CAPACITOR WITH TNEB TEST CERTIFICATE WITH ACCESSORIES INCLUDING BANKING CONFIRMING TO IS 2834.

Rs.466/- per KVAR

- 1) The above rate is basic rate inclusive of handling charges.
- 2) GST extra applicable as per GO
- 3) The rate for mixed DI Electric Capacitor with Test Certificate given as Rs.466/- per KVAR is inclusive of Banking charges, such as providing of copper bus bars with provision for adding atleast 2 capacitors at later date, cable entry box, fabricating charges etc. complete. This rate is not applicable for replacement of capacitors which does not require banking and fabrication works.

16.0 LT/LTCT METERING BOX as per IE rules and TANGEDCO norms

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	Up to 50HP/37 KW (which includes LT meter panel board 6 Nos. suitable fuse carriers)	1 No.	24255.00
2	75 HP/56 KW (which includes LT meter panel board 6 Nos. suitable fuse carriers)	1 No.	31654.00
3	75HP-150HP/56-112 KW (which includes LTCT meter panel board 6 Nos. suitable fuse carriers and 3 Nos. CT Coil)	1 No.	39445.00
4	In HT supply using LTCT metering Box as per IE rules and TANGEDCO norms (Above 150 HP below 200 HP) 112-150 KW	1 No.	63700.00

Note: 1) The above rates are basic rates inclusive of handling charges.

2) GST extra applicable as per GO

# 17.0 TRANSFORMER SUB STATION RELATED WORKS

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	Designing and preparation of CEIG drawings, obtaining Approval and safety certificate including submission of Completion report and rectification report.	1 No.	66032.00
2	Supply, delivery of 6 pole structure materials with suitable Size RSJ along with all structure material are as under.		
а	For 11 KV Sub station	1 No.	336000.00
b	For 22 KV Sub station	1 No.	448000.00
3	Construction of transformer plinth	1 No.	22400.00
4	Chain link fencing with gate including the TNEB 2 poles Spreading of materials as per CEIG requirements	1 No.	56000.00
5	Transformer yard earthing using copper flat and TWIN earthing as per IS		
а	Upto 250 KVA Transformer sub station	1 No.	33600.00
b	Above 250 KVA	1 No.	67200.00
6	Transformer sub station erection charges	1 No.	21356.00

Note: 1) The above rates are basic rates inclusive of handling charges.

2) GST extra applicable as per GO

3) Provision for cement concrete flooring has to be made at the sub station yard

# 17.1 AIR CIRCUIT BREAKER (With Shunt release and Under voltage release)

SI.No.	Range in AMPS	Rate for 2018-19 in Rupees		
31.140.	3POLE		4 POLE	
1	630	123768.00	124762.00	
2	800	153873.00	155950.00	
3	1000	174384.00	215000.00	
4	1250	185097.00	226735.00	
5	1600	205408.00	264200.00	
6	2000	242666.00	289333.00	
7	2500	266000.00	317333.00	
8	3200	349999.00	420933.00	
9	4000	486157.00	583333.00	

Note:

- 1) The above rates are basic rates inclusive of handling charges, F.O.R destination.
- 2) GST extra applicable as per GO

# 18.0 SAFETY APPLIANCES

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	Electrical gloves tested to 11 KV /22 KV with wooden box dusted with french chalk powder	1 No.	564.90
2	Electrical quality 6mm thick rubber mat	1 No.	617.40
3	5 kg capacity ISI marked Dry chemical powder fire extinguisher	1 No.	2207.10
4	Fire Bucket-3 Nos Hooked to MS stand	1 No.	882.00
5	Laminated shock treatment chart	1 No.	588.00
6	Wooden First Aid Box	1 No.	742.35
7	Rechargeable Emergency lamp( 600mm fluorescent lamp)	1 No.	2951.55
	H.T. SUPPLY		
8	Teak Wood ladder –5M Ht.	1 No.	1512.00
9	Earth Discharge Rod (3 NosRYB)	1 No.	1264.20

- 1) The above rates are basic rates inclusive of handling charges, F.O.R destination.
- 2) GST extra applicable as per GO

# 19.0 TWIN CI EARTHING as per IS 3043/1987 and Latest amendments

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	Upto 25 HP installation	1 No.	12035.00
2	Above 25-60 HP	1 No.	18522.00
3	Above 60-150 HP	1 No.	28880.00
4	Above 150 HP	1 No.	46305.00

- 1) The above rates are basic rates only.
- 2) GST extra applicable as per GO
- 3) In case of collector well the collector well distance from the bank of the river should be ascertained to find out the weight of GI strip to be used only in the foot bridge and rate of Rs.47/- per Kg should be adopted for estimation and this amount should be added with the above rates.

# 20.0 TOOLS

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	6" Chain wrench best India make or equivalent	1 No.	635.00
2	8"Chain Wrench Best India Make or equivalent	1 No.	859.00
3	Connector Screw Driver 901 Taparia		
	Make or equivalent	1 No.	55.50
4	200mm Screw Driver 825 Taparia Make or equivalent	1 No.	91.00
5	300mm Screw Driver 829 Taparia Make or equivalent	1 No.	169.00
6	400mm Screw Driver 930 Taparia Make or equivalent	1 No.	246.00
7	200mm Cutting Plier Taparia Make or equivalent	1 No.	299.00
8	800gm Ball Pane Hammer with Handle Taparia Make	1 No.	377.00
9	Digital Tong Tester CE Make or equivalent	1 No.	3334.00
10	Digital Multi Meter CE Make or equivalent	1 No.	2240.00
11	15" Screw Spanner Taparia Make or equivalent	1 No.	776.00
12	12" Bearing Puller	1 No.	770.00
13	Lever Type Grease Gun	1 No.	630.00
14	12"Screw Spanner	1 No.	570.00
15	Crow Bar 5"	1 No.	557.00
16	1" Cold Chisel	1 No.	204.00
17	Hacksaw Frame with Blade	1 No.	126.00
18	Electrical Air Blower	1 No.	2889.00
19	Digital Tachometer	1 No.	1941.00
20	Hand Crimpling Tool 8"	1 No.	525.00
21	DE Spanner set 6 to 32 Jhalani Make or equivalent	1 No.	1005.00
22	Rings spanner set 6 to 32 Jhalani Make or equivalent	1 No.	2249.00
23	Pipe Wrench 24" Jhalani Make or equivalent	1 No.	1287.00
24	Pipe Wrench 14" Jhalani Make or equivalent	1 No.	635.00
25	12" Flat rough File Scissors Make or equivalent	1 No.	317.00
26	12" Flat smooth File Scissors Make or equivalent	1 No.	477.00
27	12"Round File Rough Scissors Make or equivalent	1 No.	369.00
28	12" Round File Smooth Scissors Make or equivalent	1 No.	440.00
29	12"Half Round File Rough Scissors Make or equivalent	1 No.	644.00
30	12"Half Round File Smooth Scissors Make or equivalent	1 No.	644.00

<sup>1)</sup> The above rates are basic rates inclusive of handling charges, F.O.R destination.

<sup>2)</sup> GST extra applicable as per GO

#### 21. H.O.T. CRANE AND ACCESSORIES

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
1	2T capacity hand operated over head Travelling (HOT) crane suitable for a span upto 6 Mtrs, and travel length upto 10 Mtrs. with clear lift upto 6 Mtrs. including gear type chain pulley block with GI chain and geared Travelling trolley		
	complete with all accessories including girder	1 No.	332621.00
2	2T HOT crane with above specifications upto 8 M Span including Girder	1 No.	345514.00
3	2T HOT crane with above specifications upto 10 M Span including Girder	1 No.	375569.00
4	3T capacity hand operated over head Travelling (HOT) crane suitable for a span upto 6 Mtrs, and travel length upto 10 Mtrs. with clear lift upto 6 M including gear type chain pulley block and geared Travelling trolley complete with all accessories including Girder.	1 No.	360000.00
5	3T HOT crane with above specifications upto 8 M Span including Girder.	1 No.	389628.00
6	3T HOT crane with above specifications upto 10 M Span including Girder.	1 No.	404047.00
7	5T capacity hand operated over head Travelling (HOT) crane suitable for a span upto 6 Mtrs, and travel length upto 10 M with clear lift upto 6 M including gear type chain pulley block and geared Travelling trolley complete with all accessories including Girder.	1 No.	423948.00
8	5T HOT crane with above specifications upto 8 M Span including Girder.	1 No.	455520.00
9	5T HOT crane with above specifications upto 10M Span including Girder.	1 No.	473553.00

- The above rates are basic rates inclusive of handling charges.
   GST extra applicable as per GO

### 22.0. Submersible Centrifugal Sewage non clog pumps

Supply and delivery of submersible centrifugal sewage non-clog pumps, vertical spindle type pump, wear resistance with submersible motor for the various duty conditions as stated in the annexure. Pump shall be capable of handling min 100 mm solid size with sewage specific gravity of up to 1.05. Pump shall be of robust construction. Liquid passages shall be finished smooth and designed as to allow free passage to solids. Pump Impeller should be of Non-clog semi open type, single vane / multi vane preferably contra bloc or vortex impeller design. Double mechanical seal with silicon carbide faces should be provided to protect the motor from ingress of sewage along the shaft. The critical speed of the rotor shall be at least 30% above the operating speed. Pumps to have double bearings between the pump & motor. The bearings life shall be minimum 100,000 hrs of operation with greased for life. Pump should be provided with automatic coupling device including pedestal, duck foot bend, stainless steel guide pipe or related accessories of suitable size to facilitate lifting and lowering into guide rails for easy maintenance. Pump shall be provided with a stainless steel lifting chain conforming to BS 970 Gr 304. Pump speed shall be of 9600rpm for high duty pumps and 960/1450 rpm for low duty pumpsets. Casing and impeller should be of CI Gr. FG 260 :IS210 more preferably with hardened impeller. Shaft should be of stainless steel AISI 410. All the fasteners and bolts shall be of AISI 410. The submersible motor shall be operated with 3 ph , 415 V( + or - 10 % ) , 50 Hz ( + or - 5 % ) dry induction type. Motor shall be capable of giving rated output without reduction in the expected life span when operated continuously . The rotating assembly shall be dynamically balanced as per standards. The starting current of the motor shall not exceed 200% of rated full load current for Star / Delta or ATS starting under any circumstances .The motor shall be suitable for full voltage star delta / ATS starting. The locked rotor current of the motor shall not exceed 600% of full load current unless otherwise specified. Motor shall be designed to withstand 120 % of rated speed for two minutes without any mechanical damage, in either direction of rotation. The motor vibration shall be within the limit specified in applicable standards. Motor should be of IE2, explosion proof compatible for VFD operation together with star-Delta / ATS starter, protection against increase in stator winding temperature (15 deg Celsius), bearing temperature, leakage in the stator housing and terminal box shall be provided and to be suitably interlocked with the control panel for tripping the pump in case of increase in temperature beyond set limit.

Insulation class shall be of "Class H" and degree of protection shall be of IP 68 as per IS 4691. Motor shall be suitable for continuous operation in fully submerged or partially submerged condition. The pumpset shall be supplied with power cable of PVC insulated and PVC sheathed , copper , flexible ,round type with required conductor size and number of cores as per starting method and of specified length for continuous use under water and air. The control cable of PVC insulated , PVC sheathed , flexible for stator winding temperature sensor 3 core x 1.5 sq.mm copper conductor and for bimetallic switches 2 core x 1.5 sqmm copper conductor shall be provided. Motor shall be supplied with 10 mts of round submersible copper cable of suitable size.

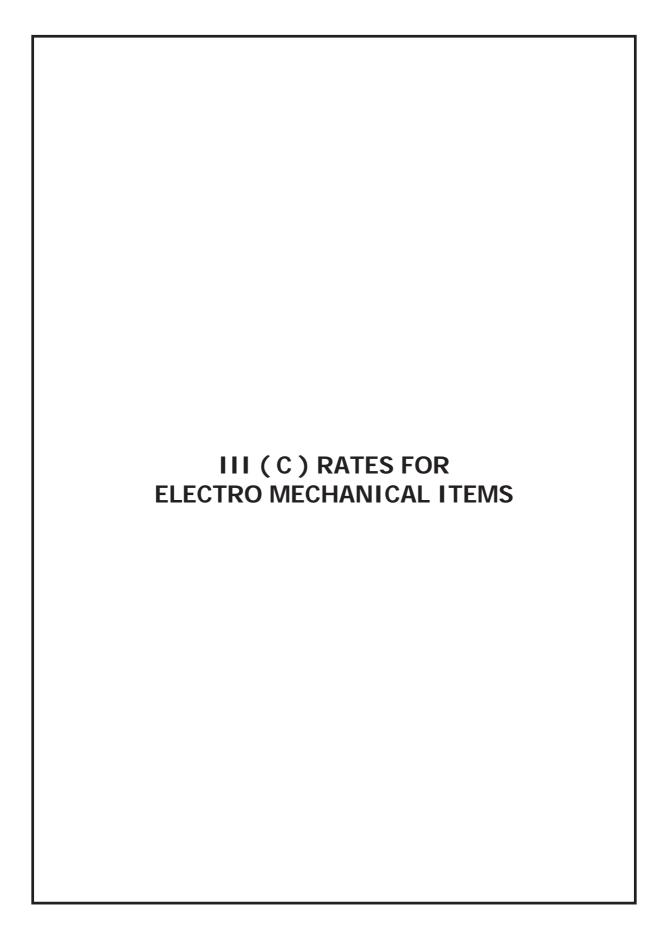
The non clog submersible pumpset shall be provided with suitable starter control panel having all protections as mentioned above. (upto 5 HP - DOL Starter, above 5 HP to 25 HP -Star Delta Panel and beyond 25 HP shall be ATS)

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
	10 m upto 15 m head		
1	Discharge Upto 20 M³/hour	1 No	458935
2	Discharge 20 to 100 M³/hour	1 No	458935
3	Discharge 100 to 200 M³/hour	1 No	484660
4	Discharge 200 to 300 M³/hour	1 No	832463
5	Discharge 300 to 400 M³/hour	1 No	1007393
6	Discharge 400 to 500 M³/hour	1 No	1206758
7	Discharge 500 to 600 M³/hour	1 No	1498594
8	Discharge 600 to 700 M³/hour	1 No	1498594
9	Discharge 700 to 800 M³/hour	1 No	1483482
10	Discharge 800 to 900 M³/hour	1 No	1584378
11	Discharge 900 to 1000 M³/hour	1 No	1981779
12	Discharge 1000 to 1100 M³/hour	1 No	1949223
	above 15m upto 20 m head		
13	Discharge Upto 20 M³/hour	1 No	458935
14	Discharge 20 to 100 M³/hour	1 No	458935
15	Discharge 100 to 200 M³/hour	1 No	798428
16	Discharge 200 to 300 M³/hour	1 No	872593
17	Discharge 300 to 400 M³/hour	1 No	1120492
18	Discharge 400 to 500 M³/hour	1 No	1206758
19	Discharge 500 to 600 M3/hour	1 No	1498594
20	Discharge 600 to 700 M3/hour	1 No	1498594
21	Discharge 700 to 800 M3/hour	1 No	1483482
22	Discharge 800 to 900 M3/hour	1 No	1584378
23	Discharge 900 to 1000 M3/hour	1 No	1981779
24	Discharge 1000 to 1100 M3/hour	1 No	1949223
	above 20 m upto 25 m head		
25	Discharge Upto 20 M³/hour	1 No	615949
26	Discharge 20 to 100 M³/hour	1 No	612890
27	Discharge 100 to 200 M³/hour	1 No	850985

SI.No.	Description	Unit	Rate for 2018-19 in Rupees
28	Discharge 200 to 300 M³/hour	1 No	967712
29	Discharge 300 to 400 M³/hour	1 No	1211764
30	Discharge 400 to 500 M³/hour	1 No	1369044
31	Discharge 500 to 600 M3/hour	1 No	1981779
32	Discharge 600 to 700 M3/hour	1 No	1981779
33	Discharge 700 to 800 M3/hour	1 No	1949223
34	Discharge 800 to 900 M3/hour	1 No	2143951
35	Discharge 900 to 1000 M3/hour	1 No	2402971
36	Discharge 1000 to 1100 M3/hour	1 No	2785562
	above 25 m upto 30 m head		
37	Discharge Upto 20 M³/hour	1 No	613155
38	Discharge 20 to 100 M³/hour	1 No	850985
39	Discharge 100 to 200 M³/hour	1 No	885971
40	Discharge 200 to 300 M³/hour	1 No	1314469
41	Discharge 300 to 400 M³/hour	1 No	1314469
42	Discharge 400 to 500 M³/hour	1 No	1888305
43	Discharge 500 to 600 M3/hour	1 No	1893647
44	Discharge 600 to 700 M3/hour	1 No	1893647
45	Discharge 700 to 800 M3/hour	1 No	2150691
46	Discharge 800 to 900 M3/hour	1 No	2150691
47	Discharge 900 to 1000 M3/hour	1 No	2360484
48	Discharge 1000 to 1100 M3/hour	1 No	3100352

Note: 1) The above rates are basic rates inclusive of transportation handling charges.

2) GST extra applicable as per GO



# III (C) RATES FOR ELECTROMECHANICAL ITEMS

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
1	Selector Switch for Panel Board / Cubical		
	Panel Board / Starter		
а	Voltmeter Selector Switch - 6A	Each	278.00
b	Ammeter Selector Switch - 6A	Each	536.00
2	Multi Functions Meters - Flush type for		
	M V Panel Board		
а	LED type, CT/PT, Voltage, Current, Frequency,		
	Kilowatt, Kilo Volt Ampere, KVAR , KVAH, Run		
	Hours, unbalance(V,A),Rpm, Phase angles,Thd-		
	Class 1 With RS 485 Port	Each	17524.00
b	LED type, CT/PT, Voltage, Current, Frequency,		
	Kilowatt, Kilo Volt Ampere, KVAR , KVAH, Run		
	Hours, unbalance(V,A), Rpm, Phase angles,		
	Thd - Class 0.5 With RS 485 Port	Each	21418.00
3	Ammeter - Digital		
а	96 mm X 96 mm Single Phase Ammeter		
	Class 1-5A	Each	2463.00
b	96 mm X 96 mm Single Phase Ammeter		
	Class 1-1A	Each	2677.00
С	96 mm X 96 mm Three Phase Ammeter		
	Class 1-5A	Each	2998.00
d	96 mm X 96 mm Three Phase Ammeter		
	Class 1-1A	Each	3320.00
4	Pressure Gauge only		
а	50 mm upto 60 kg/cm2with s.s.case	Each	621.00
b	50 mm Glycerine filledupto 400 kg/cm2	Each	1393.00
С	63 mm upto 60 kg/cm2with s.s.case	Each	643.00
d	63 mm Glycerine filledupto 400 kg/cm2	Each	1478.00
е	80 mm upto 60 kg/cm2with s.s.case	Each	835.00
f	80 mm Glycerine filledupto 400 kg/cm2	Each	2463.00
g	100 mm upto 60 kg/cm2with s.s.case	Each	1285.00
h	100 mm Glycerine filledupto 400 kg/cm2	Each	2998.00
i	150 mm upto 60 kg/cm2with s.s.case	Each	1553.00
j	150 mm Glycerine filled upto 400 kg/cm2	Each	3534.00
k	200 mm upto 60 kg/cm2 with s.s.case	Each	3427.00
ı	200 mm Glycerine filled upto 400 kg/cm2	Each	7604.00
m	250 mm upto 60 kg/cm2 with s.s.case	Each	4284.00
n	250 mm Glycerine filled upto 400 kg/cm2	Each	8568.00

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
5	Mechanical Interlocking System for For		
	M V Panel Board		
а	2 lock 1 key	Each	2945.00
b	3 lock 2 key	Each	5141.00
6	Ammeter Analog		
а	SR 65 5D/5A C.T.operated-AC	Each	530.00
b	SR 72 5D/5A C.T.operated-AC	Each	687.00
С	SR 96 5D/5A C.T.operated-AC	Each	735.00
7	Voltmeter - Digital		
а	Voltmeter- Single Phase Class 1-AC	Each	2463.00
b	Voltmeter- Three Phase Class 1-AC	Each	3320.00
8	Voltmeter Analog		
а	Voltmeter SR 65 600V-AC	Each	580.00
b	Voltmeter SR 72 500V-AC	Each	760.00
С	Voltmeter SR 96 600V-AC	Each	841.00
9	Fabrication & Supply of M V Cubical Panel		
	board vermi proof box of MS sheet 20 SWG		
	powder coated, door with 180 degree		
	opening, poly urethane/rubber gaskets		
	as per IE rules - 1m2		
а	Projection of 0.3 m	per m²	13386.00
b	Projection of 0.45m	per m²	15528.00
С	Projection of 0.6 m	per m²	20240.00
10	Electro magnetic contactors of suitable		
	capacity in AC Three Phase rating,		
	conforming to IS/IEC 60947-4-1.		
а	9Amphs	No.	754.00
b	12Amphs	No.	876.00
С	18Amphs	No.	1509.00
d	22Amphs	No.	2497.00
е	25Amphs	No.	3242.00
f	32Amphs	No.	3957.00
g	40Amphs	No.	4118.00
h	45Amphs	No.	5092.00
i	50Amphs	No.	5997.00
j	70Amphs	No.	8062.00
k	80Amphs	No.	10222.00
I	95Amphs	No.	12889.00
m	110Amphs	No.	15528.00
n	140Amphs	No.	20493.00

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
0	185Amphs	No.	24655.00
р	225Amphs	No.	27142.00
q	250Amphs	No.	30618.00
r	300Amphs	No.	36917.00
S	400Amphs	No.	46940.00
t	550Amphs	No.	67315.00
u	650Amphs	No.	100733.00
11	Overload Relays: Directly operated		
	Bimetallic Thermal overload relay which		
	operates in case of overload and also in		
	case of under voltage with manual and		
	auto reset mode.		
а	Upto 5 A	No.	1208.00
b	5 A to 10 A	No.	1363.00
С	10 A to 20 A	No.	1557.00
d	20 A to 30 A	No.	2045.00
е	30 A to 50 A	No.	2726.00
f	50 A to 75 A	No.	4382.00
g	75 A to 110 A	No.	5841.00
h	110 A to 150 A	No.	7788.00
i	150 A to 200 A	No.	9248.00
j	200 A to 300 A	No.	10709.00
12	Preventer – Single Phasing		
	Electric Motor protection device against single phasing. The device should protect the motor against single phasing, reverse phasing and unbalance supply. The device should be suitable for any device and have provisions for mounting in panel boards. Operate without need of any auxiliary supply.	No.	1050.00
13	Preventer – Dry Run	INO	1030.00
10	Electric Motor protection device against dry running. The device should protect the motor against Dry running. The device should be suitable for any device and have provisions for mounting in panel boards. Operate without	D1-	1470.00
	need of any auxiliary supply	No.	1470.00

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
14	Erection of Power Pumpset		
а	Labour Charges for erection of Horizontal shaft, centrifugal pumpset (Coupled/Monoblock) in bore well/Open well including fixing of suction pipe and foot valve upto a maximum depth of 7 metres and delivery pipes to the required length with valves, pressure gauges upto the exterior wall of pump room and erection of panel board consisting of TPIC switches starter, Voltmeter, Ammeter, Capacitor single phasing preventor and laying and jointing the cables and twin earthing as per IE rules including providing bed blocks etc., complete and operating the pumps and trial run for 10		
	days including signing of completion of		
	reports as required by EB authorities.		
i	Above 20 HP to 30 HP	1 No.	10120.00
ii	Above 30 HP to 40 HP	1 No.	13110.00
iii	Above 40 HP to 50 HP	1 No.	18285.00
b	Labour charges for the erection of submersible pumpset in borewell/openwell including fixing and jointing submersible cable with proper clamps upto the starter to required depth and also fixing of riser pipes to the required depth valves erection clamps, pressure gauges upto the exterior wall of pump room and erection of panel board consisting of TPICN switches starter, Voltmeter, Ammeter, three pilot (indicating) lamps capacitor single phasing preventor, water level guard and laying and jointing the cables and twin earthing as per IE rules etc., complete and testing the pumpset and trail run for 10 days.		
i	Above 20 HP to 30 HP	1 No.	11270.00
ii	Above 30 HP to 40 HP	1 No.	14375.00
iii	Above 40 HP to 50 HP	1 No.	18975.00
15	Hire charges for Centrifugal sludge removal pumpset with fuel and crew charges including transportations, fixing and dismantling.		
а	Upto 2 HP	per hour	190.00
b	Above 2 HP to 5 HP	per hour	247.00

Note: The above rates are basic rates.
 GST extra applicable as per GO

III (D) RATES FOR BUILDING MATERIALS

#### **BUILDING MATERIALS**

Cement - Rs. 5,530/- per metric tonne
 (Rupees Five Thousand and Five Hundred, thirty only)

The above rate for cement is basic rate and GST extra applicable as per GO. Necessary lead charges (i.e. excluding loading and unloading charges), as applicable as per conveyance table, may be allowed from the Dealer's Godown / stockyard to the site of work, if duly certified by an Officer not below the rank of Assistant Executive Engineer.

However, in the case, if the source is specified as "Stockyard" the same shall be decided and approved by the Superintending Engineers concerned.

2. Steel Rods of all sizes - Rs.44,190/- per metric tonne
(Rupees Forty Four Thousand and One Hundred and Ninety only)

The above rate for steel is basic rate and GST extra applicable as per G.O. Necessary lead charges (i.e. excluding loading and unloading charges), as applicable as per conveyance table, may be allowed from the Dealer's Godown / stockyard to the site of work, if duly certified by an Officer not below the rank of Assistant Executive Engineer.

However, in the case, if the source is specified as "Stockyard" the same shall be decided and approved by the Superintending Engineers concerned.

(The above rates are subject to revision as and when revised by the PWD authorities)

# **BUILDING MATERIALS**

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
1	Bricks-II Class Table Moulded (Chamber burnt)		
a.	9" x 4 ½" x 3"	1000 Nos.	7085.00
b.	9" x 4 <b>3</b> /8" x 2 ¾"	1000 Nos.	6810.00
2	Bricks-II Class (Ground Moulded Chamber burnt)		
a.	9"x 4 ½" x3"	1000 Nos.	6100.00
b.	9"x 4 3/8" x 2 ¾"	1000 Nos.	5925.00
3	Bricks-III Class (Country Bricks, Kiln burnt)		
а	22 x 11 x 5 cm (8 ¾" x 4 ¼" x 2")	1000 Nos.	3865.00
b.	22 x 11 x 5.7 cm (8 ¾" x 4 ¼" x 2 ¼")	1000 Nos.	4035.00
c.	22 x 11 x 7cm (8 ¾ " x 4 ¼ " x 2 ¾")	1000 Nos.	5130.00
4	Fly Ash bricks		
a.	230 x 110 x 70mm	1000 Nos.	5925.00
b.	230 x 110 x 75mm	1000 Nos.	6100.00
5	Bricks Country (specially moulded for well steining)		
a.	8 ¾ "x 4 ¼ " x 2"	1000 Nos.	2275.00
b.	Perforated Bricks 19 x 9 x 9cm	1000 Nos.	3465.00
C.	Terrace Bricks 15 x 7.5 x 2.5cm	1000 Nos.	890.00
	New I tems for Heritage Works		
6	Special Bricks 8" x 4" x 2" for Heritage works	1000 Nos.	12000.00
7	Terrace Bricks 6" x 3" x 1" for Heritage works	1000 Nos.	9000.00
8	Wire cut Bricks for Heritage works		
а	Size 9" x 4" x 3"	1000 Nos.	12000.00
b	Size 9" x 4" x 2"	1000 Nos.	10000.00
c.	Size 9" x 6.5" x 2"	1000 Nos.	15000.00
9	Flat Tiles		
a.	15cm x 15cm x 12mm	1000 Nos.	745.00
b.	15cm x 15cm x 20mm	1000 Nos.	884.00
10	Brick Jelly		
a.	40mm size	cu.m.	635.00
b.	20mm size	cu.m.	707.00
11	Pressed Tiles		
a.	20cm x 20cm x 2cm	1000 Nos.	10400.00
b.	23cm x 23cm x 2cm	1000 Nos.	14750.00
12	Pan Tiles		
a.	23cm x 8cm x 1.7cm	1000 Nos.	405.00
b.	16.5cm x 8cm x 1.7cm	1000 Nos.	334.00

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
13	Best Mangalore Tiles		
a.	1st Class 'A'	1000 Nos.	9700.00
b.	Class 'AA'	1000 Nos.	9900.00
c.	Best Mangalore Ridge Tiles	1000 Nos.	28400.00
d.	Best Mangalore Ceiling Tiles	1000 Nos.	5970.00
e.	Best Mangalore Glass Roofing Tiles	Each	280.00
f.	Best Mangalore Ventilating Tiles (Single)	Each	42.60
g.	Best Mangalore Ventilating Tiles (Double)	Each	53.40
14	Mosaic Flooring tiles GREY		
a.	25cm x 25cm x 2cm	1000 Nos.	10900.00
b.	20cm x 20cm x 2cm	1000 Nos.	6970.00
15	Mosaic (other colour)		
a.	25cm x 25cm x 2cm	1000 Nos.	15050.00
b.	20cm x 20cm x 2cm	1000 Nos.	8880.00
c.	Mosaic (Green)Tile 20cm x 20cm x 2cm	1000 Nos.	10900.00
d.	Mosaic (Green) Tile 25cm x 25cm x 2cm	1000 Nos.	17100.00
e.	Mosaic Chequered Tile of Grey colour		
	size 25 cm x 25 cm x 2 cm	1000 Nos.	13700.00
	New I tems for Heritage Works		
	Attangudi Tiles for Heritage Works		
	Size 8" x 8" x 3/4"	Each	25.00
	Size 10" x 10" x 3/4"	Each	30.00
	Stone and Road materials		
16	Rough stone for Masonry works (Hard Granite)	cu.m.	413.00
17	Rough stone for revetment works	cu.m.	358.00
18	Jeddy size for revetment (Hard granite)	cu.m.	393.00
19	Cut stone pillar of size 0.15 x 0.15 x 2.1M	Each	153.00
20	From boulders without blasting for revetment	cu.m.	105.00
21	From boulders without blasting for masonry	cu.m.	137.00
22	Course Rubble stone for masonry works	cu.m.	330.00
23	Course Rubble stone for Arch works	cu.m.	358.00
24	Chisel dressed stone		
a.	70cm x 30cm x 29cm	Each	163.00
b.	37cm x 30cm x 29cm	Each	147.00
25	Hammer dressed stone		
a.	37cm x 30cm x 29cm	Each	114.00

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
26	Cut stone fully dressed to size on all faces	cu.m.	5900.00
27	Cut stone roughly dressed	cu.m.	4060.00
28	Ashlar arch stone fully dressed to size all faces	cu.m.	4480.00
29	Flooring stone SS size (not less than 10cm thick)	sq.m.	328.00
30	Stone slab for culvert (3 faces, one line dressed)		
a.	Above 1.2m	cu.m.	4275.00
b.	Up to 1.2m	cu.m.	3885.00
31	Stone slab for culvert (3 faces, two line dressed)	cu.m.	4760.00
32	For lintel coping (3 faces, two line dressed)	cu.m.	4760.00
33	Bond stones	cu.m.	595.00
34	Kilometre stone 1.65 x 0.45 x 0.15m	Each	407.00
35	Hecta metre stone		
a.	0.90 x 0.10 x 0.10m	Each	114.00
b.	0.75 x 0.23 x 0.10m	Each	208.00
c.	0.90 x 0.15 x0.15m	Each	204.00
36	Demarcation stone (Two line dressed for top 30cm)		
a.	0.75 x 0.15 x 0.15m	Each	85.00
b.	0.90 x 0.23 x 0.23m	Each	109.00
c.	0.75 x 0.23 x 0.23m	Each	101.00
d.	0.90 x 0.15 x 0.15m	Each	93.00
e.	Demarcation Stone with letters cut 0.75 x 0.15 x 0.15m	Each	114.00
f.	Edge stone 0.45 x 0.15 x 0.15m	Each	52.00
g.	T.R.S. Bench Mark Stone neatly dressed the exposed		
	surface to a height of 15cm including cutting letters		
i)	0.15 x 0.15 x 0.60m	Each	131.00
ii)	0.10 x 0.10 x 0.25m	Each	95.00
<b>37</b> . a.	Guard Stone (Two line dressed for 45cm)		
	23cm dia 1.0m long	Each	151.00
b.	Guard stone (Top 0.70m chisel dressed and		
	0.50m bottom roughly dressed) 0.23m x 0.23m x 1.20m		
	long (Two line dressed top 45cm) 23cm dia 1.0m long	Each	161.00
c.	Guard stone (Top 0.70m chisel dressed and 0.50m		
	bottom roughly dressed) 0.23m x 0.23m x 0.9m long		
	(Two line dressed top 45cm) 23cm dia 0.90m long	Each	151.00

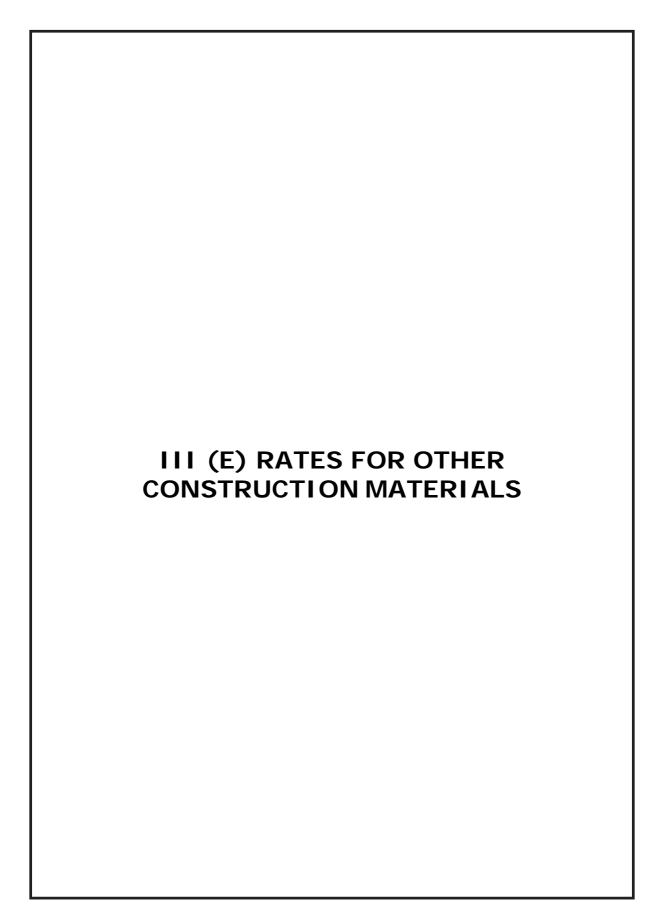
SI. No.	Description	Unit	Rate for 2018-19 in Rupees
d.	Guard stone (Top 0.70m chisel dressed and 0.50m		-
	bottom roughly dressed) 0.15m x 0.15m x 0.90m long		
	(Two line dressed top 45cm) 23cm dia 0.90m long	Each	105.00
e.	Guard stone 90cm long 23cm dia	Each	78.00
38	Hard broken Granite stone jelly (I.S.S.)		
	machine crushed / Hand broken.		
i.	90mm size	cu.m.	399.00
ii.	80mm size	cu.m.	446.00
iii.	63mm size	cu.m.	515.00
iv.	50mm size	cu.m.	598.00
V.	40mm size	cu.m.	929.00
vi.	25mm size	cu.m.	799.00
vii.	20mm size	cu.m.	1293.00
viii.	12mm size	cu.m.	1200.00
ix.	10mm size	cu.m.	883.00
x.	6mm size	cu.m.	598.00
xi.	3mm size	cu.m.	538.00
39	Quartz metal		
i.	50mm	cu.m.	90.00
ii.	40mm	cu.m.	91.00
40	Soft broken stone		
i.	63mm	cu.m.	69.00
ii.	40mm	cu.m.	78.00
41	Laterite 40mm to 75mm size	cu.m.	90.00
42	Kankar 40mm to 75mm size	cu.m.	90.00
<b>43</b> .a	Soling stones 15cm cube (un blasted)	cu.m.	105.00
b.	Soling stones 15cm cube (blasted)	cu.m.	172.00
<b>44</b> .a	Gravel	cu.m.	188.00
b.	Well Gravel	cu.m.	154.00
c.	Screened Kankar Gravel	cu.m.	113.00
<b>45</b> .a	Quarry rubbish	cu.m.	89.00
b.	Stone dust	cu.m.	114.00
c.	Pond Ash (wet /dry)	cu.m.	88.00
d	Crushed Stone Sand (M-Sand)	cu.m.	777.00
e.	Plastering sand (P- Sand)	cu.m.	883.00

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
46	Sand for Mortar	cu.m.	168.00
47	Sand for Filling	cu.m.	168.00
48	Clay for puddle and masonry	cu.m.	35.00
<b>49</b> . i)	Cuddapah slab 50mm thick	sq.m	390.00
ii)	Cuddapah slab 38mm/40mm thick	sq.m	376.00
iii)	Cuddapah slab 20mm/30mm thick	sq.m	346.00
	LIME		
50	Shell Lime (Slacked and screened)	cu.m.	1248.00
51	Freshly Slacked and Screened Burnt Lime Stone	cu.m.	919.00
52	Stone Lime or Lime Metal	cu.m.	80.00
	TIMBER AND ROOFING MATERIALS		
53	Teakwood scantlings (over 3m for joists and rafters)		
	Malabar	cu.m.	111092.00
54	Teakwood scantlings (for tiebeams and principal rafters) -		
	Malabar	cu.m.	109258.00
55	Teakwood scantlings (over 2m and below 3m in length)		
	Malabar	cu.m.	106376.00
56	Teakwood scantlings(below 2m in length ) - Malabar	cu.m.	94672.00
	New I tems for Heritage Works		
	Unslaked Pollachi Lime for Heritage Works	cu.m.	9750.00
57	Teakwood planks		
i)	Over 45cm wide and 12mm thick.	cu.m.	117293.00
ii)	Over 30cm and up to 45cm wide and 12mm thick	cu.m.	108908.00
iii)	Over 30cm and up to 45cm wide and 12mm to 25mm thick	cu.m.	101921.00
iv)	Over 30cm and up to 45cm wide and 25mm to 40mm thick	cu.m.	97729.00
v)	Over 15cm and up to 30cm wide and 12mm thick	cu.m.	95197.00
vi)	Over 15cm and up to 30cm wide and 12mm to 25mm thick	cu.m.	90480.00
vii)	Over 15cm and upto 30cm wide and 25mm to 40mm thick	cu.m.	88734.00
viii)	Up to 15cm wide and 12mm thick	cu.m.	86987.00
ix)	Up to 15cm wide and 12mm to 25mm thick	cu.m.	86987.00
x)	Up to 15cm wide and 25mm to 40mm thick	cu.m.	82183.00
	New I tems for Heritage Works		
	Seasoned Teakwood for Scantling and		
	Planks for Heritage Works		176415.00

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
58	Teak Wood Reepers		
i)	50mm x 25mm	RM	72.60
ii)	50mm x 12mm	RM	59.00
59	Country wood Scantlings		
i)	Up to 4m in length	cu.m.	32751.00
ii)	Over 4m in length	cu.m.	34498.00
60	Country wood scantlings (for tiebeams and principal		
	rafters for trusses)	cu.m.	34498.00
61	Jack wood Scantlings (up to 4m)	cu.m.	36157.00
62	Silver Oak Scantling	cu.m.	14847.00
63	Country wood planks		
i)	40mm thick- upto 30cm wide	cu.m.	37555.00
ii)	25mm thick - up to 30cm wide	cu.m.	37555.00
iii)	40mm thick - over 30cm wide	cu.m.	37555.00
iv)	25mm thick - over 30cm wide	cu.m.	37555.00
<b>64</b> .a.	Jack wood planks 25 to 40mm thick	cu.m.	39389.00
b.	Silver Oak plank (40mm thick)	cu.m.	16856.00
c.	Blue gum plank	cu.m.	17293.00
65	Country wood reepers		
a.	50mm x 25mm	RM	33.00
b.	50mm x 12mm	RM	23.80
66	Mango Plank	cu.m.	15983.00
<b>67</b> .a.	Palmyrah rafter (50mm to 60mm wide and 125mm depth)	RM	47.15
b.	Palmyrah leaves	100 Nos.	243.60
c.	Palmyrah leaves (Labour for cutting)	100 Nos.	38.30
68	Casurina Poles		
a.	13cm to 15cm diameter	RM	31.50
b.	10cm to 13cm diameter	RM	24.00
c.	8cm to 10cm diameter	RM	18.30
d.	5cm to 8cm diameter	RM	16.70
69	Eucalyptus Poles		
a.	13cm to 15cm dia	RM	31.50
b.	10cm to 13 cm dia	RM	22.50
c.	8 cm to 10 cm dia	RM	18.30
d.	5 cm to 8 cm dia	RM	15.70
e.	Below 5 cm	RM	14.30

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
70	Eucalyptus Bullies 4cm to 5 cm dia & cross ties	RM	11.50
71	Casurina Bullies 4cm to 5cm dia & cross ties	RM	12.90
72	Bamboo large		
i)	10cm diameter and above	RM	11.50
ii)	7.5cm to 10cm diameter	RM	10.10
	METAL AND I RON I TEMS		
73	Mild steel plates or sheets BG 10	Kg.	40.50
74	Mild Steel Angles 25mm x 25mm x 3mm	Kg.	40.50
<b>75</b> .a)	Binding wire (Black 18G)	Kg.	43.00
b)	Binding wire (Galvanised - 18G)	Kg.	43.00
76	G.I. sheets 30cm wide and 1.6mm thick	sq.m.	299.00
77	Weld mesh		
i)	7.5 x 2.5cm, 10 gauge	sq.m.	290.00
ii)	7.5cm x 5cm, 10 gauge	sq.m.	260.00
iii)	10cm x 10cm, 10 gauge	sq.m.	141.00
78	Chicken Mesh	sq.m.	31.10
79	Fly Proof Mesh	sq.m.	89.50
80	Supplying mild steel grills for windows, ventilators, etc.,		
	including priming coat	Kg.	53.60

- 1. For Road works, the Schedule of Rates of Highways Department may be adopted in respect of materials for which rates are not available in this schedule of rates.
- 2. For all the materials viz. Bricks and Tile products, Stone Jelly, Gravel, Sand, Lime Stone etc., necessary incidental charges, loading charges and unloading charges have been included in the basic cost of materials listed above. Hence no separate incidental charges, loading and unloading charges shall be allowed for the above materials.
- 3. The above rate is exclusive of all tax and GST.



# RATES OF OTHER CONSTRUCTION MATERIALS

Note: No extra on cost, conveyance charges shall be allowed for all the items included under this category. The rates approved therein are applicable at site of work.

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
1	Water proofing compound	Kg	39.60
2	Mild Steel Flats of all sizes	Kg	39.75
3	Mild Steel Square Rods of all sizes	Kg	39.75
4	First Quality Design Ceramic tiles of All colours		
i	305 mm x 305 mm x 6 mm	Each	45.00
ii	200 mm x 200 mm x 6 mm	Each	19.80
iii	200 mm x 100 mm x 6 mm	Each	10.70
5	First Quality Plain ceramic tiles of all colours		
i	305 mm x 305 mm x 6 mm	Each	32.20
ii	200 mm x 200 mm x 6 mm	Each	14.40
iii	200 mm x 100 mm x 6 mm	Each	7.40
6	First quality White glazed tiles		
i	150 mm x 150 mm x 6 mm	Each	7.70
ii	100 mm x 200 mm x 6 mm	Each	6.70
7	First quality colour glazed tiles		
i	150 mm x 150 mm x 6 mm	Each	8.90
ii	100 mm x 200 mm x 6 mm	Each	7.70
8	First quality colour glazed tiles with printed design		
i	150 mm x 150 mm x 6 mm	Each	10.50
ii	100 mm x 200 mm x 6 mm	Each	9.50
9	White Cement	Kg	22.00
10	Colour Cement (White cement mixed with		
	colouring pigments)	Kg	25.40
11	Multi-colour marble chips of all Grades / Sizes	Bag	84.40
12	White Marble slab (Adanga) 18 mm to 20 mm thick		
i	4'0'' x 2'0'' and above	sq.m.	1300.00
ii	2′0′′ x 2′0" or 2′0" x 1′0" or 1′0" x1′0"	sq.m.	650.00
13	Granite tiles - (Superfine polished with Machine cut edges)		
	of size 2'0" x 1'0" or 1'0" x 1'0" or 1'0" x 0'6", of 10 mm thick		
а	Jet Black	sq.m.	804.00
b	Ruby Red, Raw Silk	sq.m.	720.00
С	Sinthetic Grey, Paradise and Similar varieties.	sq.m.	680.00

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
14	Granite slabs (Super fine polished with machine		-
	cut edges) of sizes 4'x2' and above 18mm to 20mm thick.		
а	Jet Black	sq.m.	1615.70
b	Ruby Red, Raw Silk	sq.m.	1506.60
С	Sinthetic Grey, Paradise and Similar varieties.	sq.m.	1355.00
	New I tems		
d	Fine polished Steel Grey Granite Slab		
	1200mm x 600mm, 16mm to 18mm thick	sq.m.	1400.00
е	Fine polished Blue Pearl Granite Slab		
	1200mm x 600mm, 16mm to 18mm thick	sq.m.	7000.00
14 (1)a	Flamed Steel Grey Granite Slab		
	1200mm x 600mm, 16mm to 18mm thick	sq.m.	1700.00
14 (1)b	Flamed Ruby Red Granite Slab		
	1200mm x 600mm, 16mm to 18mm thick	sq.m.	1800.00
15	Polished shahabad stone slabs of 20 mm thick with		
	machine cut edges of size 2' 0" x 2'0" and above.	sq.m.	350.00
16	Polished shahabad stone slabs 20 mm thick with		
	machine cut edges of size below 2' 0" x 2'0".	sq.m.	295.00
17	Polished Rajasthan Kota stone slabs of 20 mm thick		
	with machine cut edges of size 2' 0" x 2'0" and above.	sq.m.	510.00
18	Polished Rajasthan Kota stone slabs of 20 mm thick		
	with machine cut edges of size below 2'0" x 2'0".	sq.m.	450.00
19	Dolphur stone slabs - semi polished with machine		
	cut edges of all sizes		
а	40 mm thick	sq.m.	389.00
b	20 mm thick	sq.m.	355.00
20	Aluminium strips of size 40 mm wide x 1.5 mm thick	RM	32.30
21	Brass strips of size 40 mm wide x 1.5 mm thick	RM	64.10
22	Glass strips of size 40 mm wide and 4 mm thick	RM	14.60
23	Marblex Tiles 3 mm thick	sq.m.	633.00
24	Red Oxide - Superior quality for floor finish	Kg	135.00
25	Decorative pressed tiles of 12 mm thick of		
	all sizes and shapes	sq.m.	999.00
26	Exterior Emulsion Paint - Water based primer (Liquid)	Litre	140.00
27	Alkali Resistant Distemper Primer	Litre	125.50
28	Sandtex matt	Litre	146.80

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
29	Vinaratex or equivalent Textured coat	sq.m.	189.50
30	Best Lac Polish / French Polish	Litre	245.00
31	Varnish	Litre	251.90
32	Cotton Waste	Kg	9.70
33	Cement based Hydraulically pressed Anti skid tiles		
	(pattern design) - 20 mm thick	sq.m.	473.00
34	Marble Powder	Kg	4.28
35	Polishing Stone		
i	Rough	Each	59.30
ii	Medium	Each	83.00
iii	Fine / Nice	Each	95.00
36	Oxalic Acid	Kg	36.00
37	Turpentine	Litre	22.00
38	Mansion polish	400 gram	138.00
39	Poly Sulphide	Kg	163.80
40	Primer for expansion joints	Kg	140.90
41	Filler material	sq.m.	134.30
42	Bond Breaker	RM	3.50
43	PVC Water Bar 150mm wide with single bulb	RM	267.00
44	Plain G.I. sheet 0.8mm thick (22 Gauge)	sq.m.	338.00
45	Phil Plug	Each	4.70
46	G.I. Screws		
i	30mm x 6mm	Each	1.20
ii	19mm x 6mm	Each	0.75
47	G.I. Limpet / Cup Washers	Each	1.75
48	Bitumen washers 15mm dia	Each	1.05
49	Asbestos Cement pipe - 100mm dia	3 RM	133.30
50	A.C. shoe - 100mm dia	Each	42.30
51	A.C. Bend - 100mm dia	Each	48.40
52	A.C. Cylindrical Cowl - 100mm dia	Each	72.70
53	C.I. Brackets for A.C. pipe 100mm dia	Each	18.60
54	C.I. Grating - 100mm dia	Each	29.80
55	Asbestos cement fully corrugated sheet - 6mm thick	sq.m.	175.50
56	Asbestos cement plain sheet		
i	6mm thick	sq.m.	157.50
ii	4mm thick	sq.m.	109.10

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
57	Asbestos cement adjustable ridges	Pair	181.70
58	G.I. "J" or "L" Bolts with nuts 6mm Dia	Each	3.65
59	Steel - special extruded sections for steel windows		
	and ventilators conforming to I.S.S. 7452 / 1990		
	including Fabrication charges	Kg	58.00
60	CRCA pressed steel Box section 18 Gauge or 1.25mm		
	thick for Door frames including providing holes and		
	fixing wooden blocks for fixing furniture and fittings		
а	With one coat of Red oxide priming coat.	RM	334.00
b	With powder coated primer	RM	356.00
61	Aluminium extruded sections (for Doors, windows,		
	ventilators, partitions, false ceiling etc.) including		
	charges for Anodising for 15 micron thickness		
а	Natural colour matt finish.	Kg	287.00
b	With powder coating of any colours.	Kg	307.00
62	Alumninum Extruded Box Section for Staircase		
	Hand Rails including charges for Anodising for		
	15 micron thickness - Natural colour matt finish	Kg	359.00
63	Rubber beading for aluminium glazed doors	RM	35.50
64	Rubber beading for aluminium glazed windows.	RM	27.10
65	PVC / Woollen felt for aluminium doors 6mm thick	RM	7.20
66	Pivot for Aluminium Door	Set	146.00
67	Hydraulic Door closer of various sizes of approved quality		
	using Aluminium Extruded section body tubular type		
	universal hydraulic door closer with double speed		
	adjustment like HARDWYN (make) 'GAZEL' (or) equivalent		
	(with ISI Monogram)	Each	890.00
68	Hydraulic Floor springs of various sizes double acton		
	hydraulic floor spring of approved quality, brand,		
	manufacture as per BIS standards for doors including		
	cost of cutting floors as required, embedding in to		
	floors and Stainless Steel Cover plates with Aluminium		
	Pivet and single piece M.S. sheet outer box with side		
	plate etc., capable of taking upto 130 Kg. weight from door shutter, like HARDWYN make (U-32) or its equivalent		
	with ISI monogram.	Each	1940.00
69	Lock for Aluminium doors	Each	251.00

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
70	Lock for Aluminium sliding windows	Each	62.80
71	Aluminium Grill of standard pattern (diamond shape) -		
	10mm thick including `F' (or) `H' Section.	sq.m.	1835.00
72	Aluminium Grill of standard pattern (diamond shape) -		
	6mm thick including `F' (or) `H' Section.	sq.m.	1485.00
73	Bolts and Nuts 10mm dia for false ceiling	Each	5.30
74	Rawl Plugs for false ceiling	Each	8.90
75	PVC Roller for sliding windows	Each	13.10
76	Synthetic Resin - Fevicol or equivalent (Phenol Formal		
	Dehide based Resin)	Kg	185.00
77	Butt Hinges with nylon washers of various sizes.		
	Length and width (with required screws).		
а	125mm x 30mm	Each	74.70
b	100mm x 30mm	Each	59.90
С	75mm x 30mm	Each	41.20
d	50mm x 30mm	Each	33.20
78	Tower Bolts of various lengths and diameter		
	(with required screws)		
а	400mm long and 12mm dia	Each	141.30
b	300mm long and 12mm dia	Each	108.70
С	250mm long and 12mm dia	Each	81.50
d	200mm long and 12mm dia	Each	68.50
е	150mm long and 12mm dia	Each	54.00
f	100mm long and 10mm dia	Each	47.50
g	75mm long and 10mm dia	Each	33.20
79	Aldrops of following lengths and diameter with required		
	screws, bolts and nuts.		
а	300mm long and 16mm dia	Each	174.70
b	250mm long and 16mm dia	Each	150.70
С	200mm long and 16mm dia	Each	102.00
d	200mm long and 12mm dia	Each	84.70
80	Handles "D" type of various sizes with required screws		
а	200mm long	Each	53.60
b	150mm long	Each	48.00
С	100mm long	Each	29.50
81	Ornamental handles of various sizes with required screws		

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
а	200mm long	Each	138.00
b	150mm long	Each	92.00
С	100mm long	Each	50.80
82	Aluminium door stopper with rubber bush with		
	required screws	Each	43.80
83	Rubber bush - 40 mm dia and 60 mm long with		
	required screws	Each	21.50
84	Mortice Lock-(Godrej or equivalent) with required		
	screws with 3 Keys		
а	With night latch	Each	500.00
b	Without night latch	Each	373.00
С	Wire nails	Kg	59.30
85	Teakwood beading		
а	15mm x 12mm	RM	14.30
b	35mm x 12mm	RM	36.30
86	Teakwood Beading (ordinary)		
а	30mm x 12mm	RM	30.10
b	25mm x 12mm	RM	24.20
87	Teakwood beading - Ornamental / design		
а	40mm x 12mm	RM	84.70
b	40mm x 15mm	RM	97.00
С	25mm x 12mm	RM	66.30
d	15mm x 12mm	RM	45.70
88	Medium Density Fibre (MDF) Board - Exterior Grade,		
	Both sides pre-laminated including external lipping		
	with kiln dried soft wood 35mm thick	sq.m.	2020.00
89	Medium Density Fibre (MDF) Board - exterior Grade -		
	Both sides pre-laminated, 12mm thick	sq.m.	973.00
90	MDF Board exterior Grade - Plain including external		
	lipping with kiln dried soft wood		
i	35mm thick	sq.m.	1648.00
ii	30mm thick	sq.m.	1520.00
91	Medium density fibre (MDF) Board 12 mm thick		
	Exterior grade - with melamine finish.		
а	One side melamine finish	sq.m.	1030.00
b	Both sides melamine finish	sq.m.	1160.00

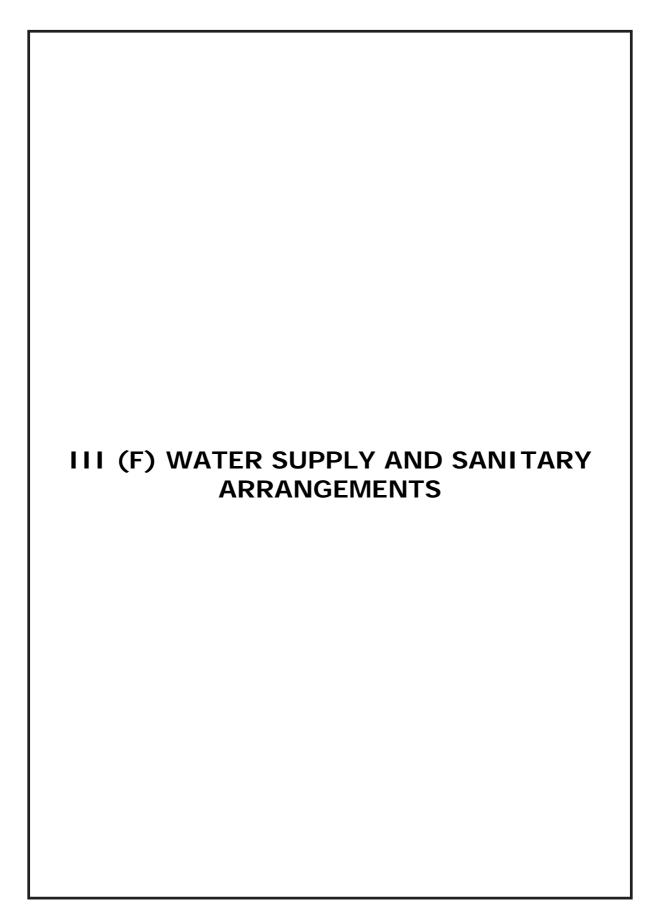
SI. No.	Description	Unit	Rate for 2018-19 in Rupees
92	Medium density fibre (MDF) board - Exterior grade -		-
	Plain - With teak wood external lipping alround		
а	35mm thick	sq.m.	1775.00
b	30mm thick	sq.m.	1575.00
93	Solid core Flush shutters with Teak ply on both side		
	with teak wook lipping alround 35 mm thick	sq.m.	2090.00
94	Solid core Flush shutters with Teak ply on one side		
	and commercial ply on other side with teak wood		
	lipping alround 35 mm thick	sq.m.	1835.00
95	Solid core Flush shutters with commercial ply on		
	both side with teak wood lipping alround 35 mm thick	sq.m.	1575.00
96	Solid PVC door shutters using 19 Gauge 19mm MS		
	square tubes for styles and outer frames. 15mm MS		
	square tubes for top, lock and bottom rails. The steel		
	tubes shall be covered with 5mm thick solid PVC sheets.		
	Shutter using 5mm thick solid PVC sheets for panelling		
	shall rigidly fixed in position including necessary furniture		
	and fittings. The over all size of styles shall be 50mm		
	x 30mm. The over all size of top rail, Lock rail and		
	bottom rail shall be 75mm x 30mm. The over all size of		
	frames shall be 50mm x 45mm, with suitable rebate for		
	housing the shutter.		
а	Solid panel PVC door with frame	sq.m.	2670.00
b	Solid panel PVC door without frame	sq.m.	2250.00
97a	FRP door Shutter with FRP door frames made out of FRP		
	Sheets of 3mm thick of over all size 65mm x 50mm with		
	rebate suitably reinforced using MS Angle / Flats, cost		
	of holdfasts and solid core FRP shutter Panel of 5mm		
	thick and hollow core frames of 3mm wall thickness for		
	styles and rails etc., of sizes specified by Engineers.	sq.m.	3700.00
b	Excluding door frames	sq.m.	2840.00
98a	PVC panelled door shutters hollow type - 200 mm x		
	20 mm panels with 1 mm wall thickness for panels and		
	styles and rails of suitable size with 2 mm wall thickness		
	suitably reinforced using MS Angle / Flat including		
	cost of necessary Aluminium hinges and other furniture		
	fittings.	sq.m.	1900.00
b	Excluding door frames	sq.m.	1605.00

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
99	RCC door frame of 100mm x 65mm cross sectional size		
	with necessary rebate for housing the shutters,		
	manufactured with cement concrete of grade not less		
	than M20 using 10 mm and below graded stone jelly		
	and using steel reinforcement as per C.E. (B) circular		
	instructions.	RM	266.00
100	Stainless Steel (Salem Stainless Steel) Door Frame (Box Section using Stainless Steel Plate of 1 mm thick) of size 100 mm x 60 mm with a rebate of 30/35 mm x		
	15 mm on one side of the frame including supplying and		
	fixing dovetail splayed end stainless steel Hold fast etc.,	RM	850.00
101	Stainless Steel (Salem Stainless Steel) Door Frame		
	(Box Section using Stainless Steel Plate of 1.6mm thick) of size100mmx60mm with a rebate of 30/35mm x 15mm		
	on one side of the frame including supplying and fixing		
	dovetail splayed end stainless steel hold fast etc.,	RM	1150.00
102	Supplying and erecting pull and push type rolling shutter with ISI make of approved size and section using 18 GI sheet. The shutter shall be painted with one coat of red oxide primer and the rate is inclusive of hood		
	covers, transportation charges etc.,		
	ROLLING SHUTTERS (WITH ISI MONOGRAM)		
a	Manually operated (up to 8 m <sup>2</sup> area)	sa m	2010.00
b	Gear operated type (from 8 m² to 12 m² area)	sq.m.	2240.00
		sq.m.	2435.00
В	Electrically operated type (exceeding 12m² area)	sq.m.	2433.00
	ROLLING GRILLS (WITH ISI MONOGRAM)		2050.00
a	Manually operated (up to 8 m² area)	sq.m.	2050.00
b	Gear operated (from 8 m² to 12 m² area)	sq.m.	2305.00
C 102	Electrically operated (exceeding 12 m² area)	sq.m.	2565.00
103	Barbed Wire - 10 Gauge - Two ply and four pronged	1 Kg or	
	(Galvanised)	6 RM	57.50
104	Chain link - 2" x 2" using 10 Gauge Galvanised Iron Wire		
	(of all sizes)	sq.m.	148.30
105	Pin Headed / Fluted / Figured Glass 3mm thick	sq.m.	210.00
106	Plain Glass - 4mm thick	sq.m.	284.00
107	Plain Sheet Glass - 5.5mm thick	sq.m.	336.00
108	Metal screws (for Aluminium Doors, windows etc.)		
i	75mm x 8mm	Each	2.05
ii	38mm x 6mm	Each	1.45

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
iii	19mm x 8mm	Each	1.00
iv	19mm x 6mm	Each	0.75
109	Cement paint (First quality)	Kg	46.20
110	Oil Bound Distemper	Kg	68.30
111	Acrylic Distemper	Kg	78.90
112	Primer for Plastic Emulsion paint	Litre	136.50
113	Plastic Emulsion paint (First quality)	Litre	274.00
114	Wood Primer	Litre	136.50
115	Synthetic Enamel paint for Wood work	Litre	221.00
116	Red Oxide primer for Iron work	Litre	126.70
117	Synthetic Enamel paint for Iron work	Litre	211.00
118	Brass chromium plated screw down Tap 15 / 12mm		
	Dia (Heavy Type)	Each	191.00
119	Chromium plated stop cock 15mm Dia	Each	140.00
120	Brass chromium plated pillar Tap (Heavy type)-15/12mm Dia	Each	251.00
121	Brass chromium plated shower Rose - 100mm Dia	Each	180.00
122	Wooden plug, clamp and screws	Set	11.40
123	Shellac	100 gram	17.20
124	Thread Ball	Each	3.35
125	Oriya Type Indian Water closet 580mm x		
	440mm with "P" or "S" Trap		
i	White	Set	1119.00
ii	Colour	Set	1425.00
126	European Water closet with "P" or "S" Trap with Double		
	Flapped seat and seat cover with Brass Hinges and 10 litre		
	capacity PVC low level flusing tank with all internal fittings		
i	White	Set	2860.00
ii	Colour	Set	3230.00
127	European water closet with "P" or "S" Trap with		
	Double flapped seat and seat cover with Brass Hinges		
	and 12.5 litre capacity Porcelin low level flusing tank		
	with all internal fittings		
i	White	Set	4030.00
ii	Colour	Set	4850.00
128	Wash Hand Basin of size 550mm x 400mm with all		
	accessories such as cast iron brackets, 32mm dia C.P.		
	waste coupling, rubber plug and chain, 32mm dia `B'		
	Class G.I. waste pipe, 15mm dia G.M. wheel valve,		

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
	15mm dia nylon connection, 15mm dia brass nipples,		
	15mm C.P. pillar tap etc.		
i	White without pedastal	Set	1550.00
ii	White with pedastal	Set	1863.00
iii	Colour without pedastal	Set	2075.00
iv	Colour with pedastal	Set	2295.00
129	White Porcelin Sink of size 600mm x 450mm x 200mm		
	with 32mm dia `B' Class G.I. waste water pipe and		
	32mm dia C.P. waste coupling.	Set	1988.00
130	Cuddapah Slab Sink of size 600mm x 450mm x 200mm		
	with 32mm dia 'B' Class G.I. waste water pipe & 32mm		
	dia C.P. waste coupling.	Set	713.00
131	Cuddapah Slab Sink of size 600mm x 600mm x 200mm		
	with 32mm dia `B' Class G.I. waste water pipe &		
	32mm dia C.P. waste coupling.	Set	944.00
132	Lipped Mouth Porcelin Flat Back Urinal with all accessories		
	such as 32mm dia Bell mouth PVC connection, 15mm dia		
	G.M. wheel valve, 15mm dia `B' Class G.I. waste water pipe,		
	15mm dia nylon connection, 15 mm dia brass nipple etc.,		
i	White	Set	870.00
ii	Colour	Set	997.00
133	Porcelin soap dish of size 150mm x 150mm x 50mm		
i	White	Each	181.50
ii	Colour	Each	248.80
134	Brass chromium plated soap tray of size 150mm x 100mm	Each	152.70
135	Brass chromium plated towel rail 60cm long and 20mm dia		
	with Brackets	Set	248.80
136	Anodised Aluminium Towel Rail 60cm long and 20mm dia		
	with Brackets.	Set	128.00
137	PVC / Fibre Glass framed 5.5mm thick mirror,		
	shelf type with Hard Board Backing		
i	600mm x 450mm	Each	440.00
ii	500mm x 400mm	Each	355.00
138	Stone ware gully trap of size 150mm x 100mm with		
	cast Iron Double Gratings	Each	157.70
139	Cast Iron Nahini / Floor Trap with stainless Steel Grating		
i	100mm x 75mm	Each	258.60
ii	75mm x 50mm	Each	202.60

SI. No.	Description	Unit	Rate for 2018-19 in Rupees
140	PVC Nahini / Floor Trap with PVC Grating		-
i	100mm x 75mm	Each	143.00
ii	75mm x 50mm	Each	125.20
141	Spun Yarn	Kg	12.20
142	Hemp Yarn	Kg	11.00
143	Gunny Tape / Kithan	sq.m.	11.00
144	Tar	Kg	38.00
145	Bitumen Felt 15 mm thick pad	sq.m.	218.00
146	Supplying, fabricating, erecting and fixing gyp board		
	false ceiling upto a ceiling height of 4.5m from floor level.		
а	Using plain sheets (10mm thick)	sq.m.	900.00
b	Using perforated sheets (10mm thick)	sq.m.	921.00
147	Supplying and laying Glass wool for insulation including		
	necessary packing materials.		
а	Using 50mm thick Glass wool	sq.m.	364.00
b	Using 25mm thick Glass wool	sq.m.	194.00
148	Vitrified Tiles of size 600 x 600 x 8 mm	sq.m.	597.00
149	Pre-polished concrete anti-skid step tiles of 20mm thick	sq.m.	571.00
150	Colour designed glazed tiles 300 x 200 x 6 mm	Each	28.30
151	Squatting Urinal	Set	421.00
152	CI Brackets for fixing the sink	set	99.90
153	Swan Neck Tap	Each	235.00
154	Brass Screws (30 x 6 mm)	Each	2.25
155	Brass Screws (75 x 10 mm)	Each	4.55
156	Special clamp, teak wood plugs and screws	Set	20.00
157	PVC Clamp, teak wood plugs and screws	Set	7.90
158	Teak Wood plug	Each	1.00
159	Teak wood plug (50 x 50 x 100 mm)	Each	5.00
160՝	Manhole cover 60 x 60 cm (heavy duty) with frame	Each	1725.00
161	Welding Charges		
а	50 mm	Each	1.95
b	40 mm	Each	1.55
162	Add for painting/ tarring for Hex Nipple	Each	2.65
163	Labour charges for fixing cuddapah slab to cup board	sq.m.	42.60
164	Hire charges for polishing machinery	Day	212.00
165	Electricity charges	Unit	11.10



## WATER SUPPLY AND SANITARY ARRANGEMENTS

SI. No.	Name of Materials	Unit	Basic Rate approved for the year 2018-2019 (Working Pressure)		
			4Kg per cm2	6Kg per cm2	10Kg. per cm2
	WATER SUPPLY AND SANITARY ARRANGEMENTS				
1	PVC ITEMS FINOLEX (OR) EQUIVALENT (WITH ISI MONOGRAM)				
ı	PVC Pipes				
а	15 mm Dia	RM			13.90
b	20 mm Dia	RM			20.60
С	25 mm Dia	RM			35.10
d	32 mm Dia	RM			52.50
е	40 mm Dia	RM			82.20
f	50 mm dia	RM	52.50	82.20	122.90
g	63 mm dia	RM	76.00	111.30	
h	75 mm Dia	RM	105.70	158.40	
i	90 mm Dia	RM	123.20	188.20	
j	110 mm Dia	RM	164.60	247.00	
k	160 mm Dia	RM	340.00	482.00	

- Note (1) For Rainwater down fall pipe works, only PVC Pipe of working Pressure of **4 kg. per sq.cm**. shall be adopted.
  - (2) For Sanitary arrangement items of works, only PVC Pipe of working Pressure of **6 kg. per sq.cm**. shall be adopted.
  - (3) For Water Supply arrangement items of works, only PVC Pipe of working Pressure of **10 kg. per sq.cm**. shall be adopted.

SI. No.	Name of Materials	Unit	Basic Rate approved for the year 2018-2019 Working Pressure 10Kg per CM2
2	PVC Specials for water supply		
	arrangements		
Α	Coupler		
a	15 mm Dia	Each	3.40
b	20 mm Dia	Each	3.90
С	25 mm Dia	Each	4.60
d	32 mm Dia	Each	5.80
е	40 mm Dia	Each	8.60
f	50 mm Dia	Each	11.70
В	Elbow		
а	15 mm Dia	Each	5.10

SI. No.	Name of Materials	Unit	Basic Rate approved for the year 2018-2019 (Working Pressure
	20 5:	<del>                                     </del>	10Kg per CM2)
b	20 mm Dia	Each	5.80
С	25 mm Dia	Each	8.10
d	32 mm Dia	Each	11.70
e	40 mm Dia	Each	16.40
f	50 mm Dia	Each	23.40
С	BEND		F 00
a	15 mm Dia	Each	5.80
b	20 mm Dia	Each	7.00
C	25 mm Dia	Each	9.30
d	32 mm Dia	Each	13.90
е	40 mm Dia	Each	18.70
f	50 mm Dia	Each	29.30
D	Tee		
a	15 mm Dia	Each	7.00
b	20 mm Dia	Each	8.10
С	25 mm Dia	Each	11.70
d	32 mm Dia	Each	14.00
е	40 mm Dia	Each	23.40
f	50 mm Dia	Each	35.10
E	End Cap		
а	15 mm Dia	Each	3.40
b	20 mm Dia	Each	4.60
С	25 mm Dia	Each	5.80
d	32 mm Dia	Each	7.00
е	40 mm Dia	Each	10.90
f	50 mm Dia	Each	15.10
F	Reducer		
а	20 mm x 15 mm	Each	4.60
b	25 mm x 20 mm	Each	5.10
С	32 mm x 25 mm	Each	8.10
d	40 mm x 32 mm	Each	10.90
е	50 mm x 40 mm	Each	18.70
G	Reducer Tee		
а	20 mm x 15 mm	Each	7.00
b	25 mm x 20 mm	Each	8.10
С	32 mm x 25 mm	Each	11.70
d	40 mm x 32 mm	Each	14.00
е	50 mm x 40 mm	Each	23.40
Н	Reducer Elbow		
а	20 mm x 15 mm	Each	5.80
b	25 mm x 20 mm	Each	7.00
С	32 mm x 25 mm	Each	9.30
d	40 mm x 32 mm	Each	11.70
е	50 mm x 40 mm	Each	17.50
J	Jet Nipple		
а	25 mm Dia	Each	15.10
b	32 mm Dia	Each	19.80

SI. No.	Name of Materials	Unit	Basic Rate approved for the year 2018-2019 (Working Pressure 10Kg per CM2)	
			"O" Ring Jointing	By Pasting
3	PVC SPECIALS FOR SANITARY			
	ARRANGEMENTS FINOLEX (OR)			
	EQUIVALENT (WITH ISI MONOGRAM)			
Α	Elbow			
а	75 mm	Each	61.60	50.40
b	90 mm	Each	78.90	60.90
С	110 mm	Each	95.70	78.90
d	160 mm	Each	107.00	90.30
В	Door Elbow			
a	75 mm	Each	78.90	56.40
b	90 mm	Each	101.60	67.70
С	110 mm	Each	124.00	107.00
d	160 mm	Each	146.80	124.20
С	Tee			
a	75 mm	Each	84.40	78.90
b	90 mm	Each	107.00	95.70
С	110 mm	Each	140.90	129.60
d	160 mm	Each	158.10	140.10
D	Tee with Door (Single)			
a	75 mm	Each	107.00	101.60
b	90 mm	Each	129.60	112.70
С	110 mm	Each	163.50	152.20
d	160 mm	Each	197.40	180.80
E	Tee with Door (Double)			
a	75 mm	Each	135.30	129.60
b	90 mm	Each	186.00	169.00
С	110 mm	Each	226.00	214.00
d	160 mm	Each	259.00	230.00
F	Bend			
a	75 mm	Each	67.70	56.40
b	90 mm	Each	84.40	67.70
С	110 mm	Each	101.60	84.40
d	160 mm	Each	112.70	95.70
G	"Y"			<b></b>
a	75 mm	Each	90.30	84.40
b	90 mm	Each	112.70	101.60
С	110 mm	Each	146.80	135.50
d	160 mm	Each	163.50	146.80
Н	"Y" with Door (single)		107.00	101.55
a	75 mm	Each	107.00	101.60

SI. No.	Name of Materials	Unit	Rates for 2018-19 in Rupees		
			"O" Ring Jointing	By Pasting	
b	90 mm	Each	135.60	118.30	
С	110 mm	Each	180.80	158.10	
d	160 mm	Each	208.00	186.00	
I	"Y" with Door (Double)				
а	75 mm	Each	146.80	140.80	
b	90 mm	Each	197.40	180.80	
С	110 mm	Each	237.30	225.00	
d	160 mm	Each	287.00	259.00	
J	Double Tee with Door (Single)				
а	75 mm	Each	186.00	152.20	
b	90 mm	Each	214.00	174.80	
С	110 mm	Each	253.00	220.00	
d	160 mm	Each	282.00	248.00	
К	Double "Y" with Door (single)				
а	75 mm	Each	203.00	169.00	
b	90 mm	Each	226.00	192.00	
С	110 mm	Each	259.00	242.00	
d	160 mm	Each	316.00	282.00	
L	Reducer				
а	75 mm x 63 mm	Each	61.70	50.40	
b	110 mm x 63 mm	Each	78.90	67.70	
С	110 mm x 75 mm	Each	90.30	78.90	
d	110 mm x 90 mm	Each	101.50	90.30	
f	160 mm x 110 mm	Each	118.30	112.70	
М	Shoe				
а	110 mm dia	Each	_	67.70	
b	160 mm dia	Each	_	101.50	
N	Vent Cowl				
а	50 mm dia	Each	_	27.90	
b	75 mm dia	Each	_	45.10	
С	110 mm dia	Each	_	67.70	
	OTHER ITEMS :				
4	PVC screw down tap heavy type 20 mm dia.	Each	75.	.70	
5	PVC screw down tap heavy type 15 mm dia.	Each	58.50		
6	PVC Adhesive (solution)	100 gm	32.	32.10	
7	PVC low level flushing tank with all				
	internal fittings - (wall mounting type)				
а	White - 10 litre capacity	Set	807.00		
b	White - 7.5 litre capacity	Set	617.00		
C	Colour - 10 litre capacity	Set	914.00		
d	Colour - 7.5 litre capacity	Set	726.		

SI. No.	Name of Materials	Unit	Basic Rate for the year		
			"O" Ring Jointing	By Pasting	
8	PVC AND HDPE PIPES FOR BORE WELLS				
Α	Special Blue Pipes for Bore Well				
а	110mm dia	RM	_	281.00	
b	125mm dia	RM	_	316.00	
С	140mm dia	RM	_	363.00	
d	160mm dia	RM	_	410.00	
В	Special Blue Slotted Pipes for Bore Wells				
а	110mm dia	RM	_	293.00	
b	125mm dia	RM	_	334.00	
С	140mm dia	RM	_	387.00	
d	160mm dia	RM	_	470.00	
С	End Cap for Bore Well				
а	110mm dia	Each	_	87.90	
b	125mm dia	Each	_	94.00	
С	140mm dia	Each	_	105.80	
d	160mm dia	Each	_	117.00	
	HDPE PIPES FOR SUB-MERSIBLE PUMP IN BORE WELL Class-5				
D					
a	(1 MPa or 10 kg./cm2 pressure) 20mm dia	RM		29.00	
b	25mm dia	RM	<del></del>	52.50	
С	32mm dia	RM	<del></del>	70.40	
d	40mm dia	RM	_	99.60	
e	50mm dia	RM		141.00	
9	PVC Water Tank	Litre	R	20	
10	UPVC Pipe (Un-Plasticized Polyvinyl Chloride)	Little	0.	20	
10	UPVC used for residential and home applications,				
	water pressure in residential areas do not				
	normally exceed the maximum tolerance.				
	(Schedule-40)				
a	15mm dia	RM	34.	60	
b	20mm dia	RM	49.		
С	25mm dia	RM	72.		
d	32mm dia	RM	97.		
e	40mm dia	RM	108.		
f	50mm dia	RM		149.30	
g	65mm dia	RM	222.		
h	80mm dia	RM	284.		
i	100mm dia	RM	373.		
j	150mm dia	RM	622.		

SI. No.	Name of Materials	Unit	Basic Rate for the year	
			"O" Ring Jointing	By Pasting
11	UPVC Pipe (Un-Plasticized Polyvinyl			
	Chloride) UPVC used for commercial			
	applications operate and designed to handle			
	higher water pressure (Schedule-80)			
а	15mm dia	RM	43.	
b	20mm dia	RM	61.	
С	25mm dia	RM	87.	
d	32mm dia	RM	120.	
е	40mm dia	RM	148.	
f	50mm dia	RM	201.	
g	65mm dia	RM	287.	
h	80mm dia	RM	413.	
i	100mm dia	RM	612.	
j	150mm dia	RM	1022.	00
12	CPVC (Chlorinated Poly Vinyl Chloride) Pipe			
	(Higher pressure rating with higher pipe			
	thickness) Standard Dimension Ratio-11			
a	15mm dia	RM	62.	
b	20mm dia	RM	95.	
С	25mm dia	RM	148.	
d	32mm dia	RM	222.	
e	40mm dia	RM	244.	
f	50mm dia	RM	266.	
g	65mm dia	RM	288.	80
13	CPVC (Chlorinated Poly Vinyl Chloride) Pipe			
	(Lesser pressure rating with lesser pipe			
	thickness) Standard Dimension Ratio-13.50	DM		10
a	15mm dia	RM	55.	
b	20mm dia	RM	87.	
C	25mm dia	RM	126.	
d	32mm dia 40mm dia	RM RM	192. 212.	
e f				
	50mm dia 65mm dia	RM RM	232. 251.	
g	New I tems	FUYI	251.	00
14	UPVC Specials			
14 	·			
-	Elbow 50mm dia	Each	71	25
a	50mm dia 40mm dia	Each	71.	
b		Each	47.	
С	32mm dia 25mm dia	Each	35. 23.	
d	ZJIIIII UId	Each	23.	/3

SI. No.	Name of Materials	Unit	Basic Rate for the year	
			"O" Ring Jointing	By Pasting
е	20mm dia	Each	14.	65
f	15mm dia	Each	9.	75
II	Tee			
а	50mm dia	Each	98.	75
b	40mm dia	Each	61.	25
С	32mm dia	Each	46.	25
d	25mm dia	Each	31.	25
е	20mm dia	Each	18.	15
f	15mm dia	Each	12.	90
III	Union			
а	25mm dia	Each	53.	75
b	32mm dia	Each	72.	50
С	40mm dia	Each	107.	50
IV	Reducer			
а	50mm x 40mm dia	Each	48.	75
b	40mm x 32mm dia	Each	31.	25
С	32mm x 25mm dia	Each	22.	75
d	25mm x 20mm dia	Each	13.	75
е	20mm x 15mm dia	Each	10.	25
V	Reducer Elbow			
а	50mm x 40mm dia	Each	95.	00
b	40mm x 32mm dia	Each	65.	30
С	32mm x 25mm dia	Each	47.	50
d	25mm x 20mm dia	Each	31.	05
е	20mm x 15mm dia	Each	25.	80
VI	Reducer Tee			
а	50mm x 40mm dia	Each	108.	75
b	40mm x 32mm dia	Each	72.	50
С	32mm x 25mm dia	Each	52.	50
d	25mm x 20mm dia	Each	31.	25
е	20mm x 15mm dia	Each	25.	00
VII	Hex Nipple			
а	50mm dia	Each	152.	50
b	40mm dia	Each	101.	25
С	32mm dia	Each	66.	25
d	25mm dia	Each	47.	50

SI. No.	Name of Materials	Unit	Basic Rate approved for the year 2018-2019	
			"O" Ring Jointing	By Pasting
15	CPVC Specials			
ı	Elbow			
а	50mm dia	Each	299.	00
b	40mm dia	Each	145.	00
С	32mm dia	Each	87.	10
d	25mm dia	Each	40.	95
е	20mm dia	Each	19.	50
f	15mm dia	Each	16.	90
Ш	Tee			
а	50mm dia	Each	376.	00
b	40mm dia	Each	199.	55
С	32mm dia	Each	111.	15
d	25mm dia	Each	49.	40
е	20mm dia	Each	31.	85
f	15mm dia	Each	22.	75
III	Coupling			
а	50mm dia	Each	204.	75
b	40mm dia	Each	98.	15
С	32mm dia	Each	53.	50
d	25mm dia	Each	26.	65
е	20mm dia	Each	15.	60
f	15mm dia	Each	13.	00
IV	Union			
а	50mm dia	Each	540.	00
b	40mm dia	Each	300.	00
С	32mm dia	Each	181.	35
d	25mm dia	Each	112.	45
е	20mm dia	Each	89.	05
f	15mm dia	Each	57.	20
V	Nipple			
а	50mm dia	Each	357.	50
b	40mm dia	Each	226.	85
С	32mm dia	Each	155.	35
d	25mm dia	Each	99.	45
е	20mm dia	Each	65.	65
f	15mm dia	Each	59.	80

Note:- The basic rate adopted under this Head-"Rates for other construction materials" is exclusive of all taxes and GST.

III (G) RATES FOR ELECTRICAL ITEMS

## ELECTRICAL ITEMS OF WORKS ELECTRICAL LAMPS, FITTINGS AND CONNECTED ACCESSORIES

Note:- No extra on cost, conveyance charges shall be allowed for all the items included under this category. The rates approved therein are applicable at site of work.

Item No.	Description PART-A	Unit	Rates for 2018-19 in Rupees
1	INCANDESCENT BULBS 230V/ 250V GRADE BC/		
1	ES WITH ISI		
	15 Watts	Each	9.10
a. b.	25 Watts	Each	9.10
<u>с.</u>	40 Watts	Each	9.10
d.	60 Watts	Each	9.10
e.	100 Watts	Each	9.10
f.	200 Watts	Each	18.20
2	INCANDESCENT BULB 230V/250V GRADE BC/ ES	Lacii	10.20
 a.	Colour 15 Watts	Each	11.10
 b.	Blended lamp 160 Watts	Each	220.00
3	PL LAMP (PHILIPS/ OSRAM / EQUIVALENT)	Lacii	220.00
 a.	9 Watts	Each	68.50
b.	11 Watts	Each	73.00
C.	18 Watts	Each	115.00
d.	36 Watts	Each	127.90
4	FLUORESCENT TUBULAR LAMPS WITH ISI MARK	Lacii	127.50
	Cool Day light 2 Ft. 20 Watts	Each	34.40
b.	Cool Day light 4 Ft. 40 Watts	Each	34.40
С.	Cool Day light 4 Ft. 36 Watts	Each	33.60
	New Item (HAVELS / EQUIVALENT)		
5	4' 18W crystal Glass LED Tube Light	Each	370.50
6	MERCURY VAPOUR DI SCHARGE LAMP 230V GRADE		
	3 PIN BC		
a.	80 Watts	Each	158.00
b.	125 Watts	Each	166.00
С.	250 Watts	Each	405.00
d.	400 Watts	Each	572.00
7	BOX TYPE SINGLE FLUORESCENT FITTING WITH		
	COPPER CHOKE AND CONDENSOR COMPLETE		
	WITH ISI MARK		
a.	4 Ft. 40 Watts with ballast	Each	293.00
b.	4 Ft. 40 Watts Box type with Ballast (Philips/		
	Crompton / Wipro / Equivalent)	Each	431.00

Item No.	Description	Unit	Rates for 2018-19 in Rupees
8	BOX TYPE TWIN FLUORESCENT FITTING WITH		
	COPPER CHOKE AND CONDENSOR[HPF]		
	COMPLETE WITH ISI MARK		
a.	4 Ft. 40 Watts	Each	550.00
b.	4 Ft. 40 Watts Box type (Philips/ Crompton)		
	With Ballast	Each	718.00
9	INDUSTRIAL TYPE FLUORESCENT FITTING STOVE		
	ENAMELLED WITH COPPER CHOKE AND CONDENSOR		
	(HPF) 4 Ft. 40W		
a.	Single type suitable for 1 No. tube	Each	810.00
b.	Twin type suitable for 2 Nos. tube	Each	995.00
10	DECORATIVE TWIN FLUORESCENT TYPE FITTING		
	WITH COPPER CHOKE AND CONDENSOR COMPLETE		
	SUITABLE FOR 2 NUMBERS FLUORESCENT TUBES		
a.	4 Ft. 40W Twin Mirror optic Recessed mounting fitting	Each	1395.00
b.	4 Ft. 40W Twin Mirror optic Suspension type fitting.		
	(Philips/ Crompton /Wipro)	Each	2515.00
c.	4 Ft. 40W Twin Mirror Optic Recessed mounting		
	type fitting(Philips/ Crompton/ Wipro)	Each	1845.00
11	SINGLE TYPE STREET LIGHT FLUORESCENT FITTING		
	SUITABLE FOR ONE NO. FLUORESCENT TUBE WITH		
	COPPER CHOKE AND CONDENSOR COMPLETE		
a.	4 Ft. 40 Watts type	Each	614.00
12	TWIN TYPE STREET LIGHTS FLUORESCENT FITTING		
	SUITABLE FOR 2 Nos. FLUORESCENT TUBES WITH		
	COPPER CHOKE AND CONDENSOR COMPLETE		
a.	4 Ft. 40 Watts type	Each	826.00
13	POST TOP LANTERN FITTING OF (INTEGRAL TYPE)		
	WITH COPPER CHOKE AND CONDENSOR &		
	NECESSARY ACCESSORIES (PHILIPS/ CROMPTON		
	GREAVES/WIPRO)(SPHERICAL / RIBBED /CONICAL		
	ACRYLIC COVER)		
a.	Suitable for 125 Watts M.V lamp	Each	2970.00
b.	Suitable for 70 Watts S.V. Lamp	Each	3130.00
c.	Post top lantern fitting with S.C. holder suitable for		
	160 W blended lamp/ incandescent lamp	Each	1710.00

Item	Description	Unit	Rates for 2018-19 No. in Rupees	
14	CFL STREET LIGHT FITTINGS (COMPACT FLOURESCENT LAMP)		Higher End Havells /	Lower End Orbit/ Inventa/
			Crompton/ Equivalent/	Equivalent/
а	T5 Street Light (IP65) T5SHE11414EB/4x14W T5	Each	3540	2830
b	T5 Street Light (IP65) T5SHO11424EB/4x24W T5	Each	3910	3130
С	1 x 9W CFL Street Light	Each	815	652
d	1 x 11W CFL Street Light	Each	815	652
е	1 x 13W CFL Street Light	Each	820	655
f	1 x 18W CFL Street Light	Each	820	655
g	2 x 9W CFL Street Light	Each	780	625
h	2 x 11W CFL Street Light	Each	955	765
i	2 x 13W CFL Street Light	Each	955	765
j	2 x 18W CFL Street Light	Each	955	765
k	1 x 36 CFL Street Light	Each	975	780
I	Orion Retro 45-1x45W 4U Retro CFL B22 Street Light	Each	910	730
m	Orion Nova CFL - 1 x 85W CFL E27 Street Light	Each	1480	1185
n	Orion Nova CFL 1 x 85W CFL B22 Street Light	Each	1480	1185
0	Crypton DD Series for FP-L2x36WFP-LHF(MS) Street Light	Each	1540	1230
р	Crypton DD Series for FP-L2 x 36WFP-LHF(AL) Street Light	Each	1710	1365
q	Crypton DD Series for T5 1 x 24W FTL T5 Street Light	Each	1595	1275
r	Crypton DD Series for T5 2 x 14W FTL T5 Street Light	Each	1765	1415
S	Crypton DD Series for T5 2 x 24W FTL T5 Street Light	Each	1850	1480
t	Crypton FTL 1 x 36 / 40W FTL Street Light	Each	1280	1025
u	Crypton FTL 2 x 36 / 40W FTL Street Light	Each	1825	1460
15	LED INDOOR FITTINGS (LIGHT EMITTING			
	DIODE)		Higher End Havells / Crompton/ Equivalent/	Lower End Orbit/ Inventa/ Equivalent/
а	LED 4000K 2 x 2 Square Type Recessed Fitting	Each	3350	2375
b	18W LED 3000K Square Type Recessed Fitting	Each	1310	865
С	18W LED 3000K Round Type Recessed Fitting	Each	1190	940

Item No.	Description	Unit	Rates for 2018-19 in Rupees
16	LED OUTDOOR FITTINGS (LIGHT EMITTING DIODE)		Higher End
			Havells /
			Crompton/
			Equivalent
а	30W LED Street Light Fitting	Each	2390.00
b	48W LED Street Light Fitting	Each	4720.00
С	80W LED Focus Light Fitting	Each	11250.00
17	LED OUTDOOR FITTINGS (LIGHT EMITTING DIODE)		Lower
			End Orbit /
			Equivalent
а	25W LED Street Light Fitting	Each	1130.00
b	30W LED Street Light Fitting	Each	1755.00
С	60W LED Street Light Fitting	Each	3470.00
	New I tems		
18	TIMER SWITCHES		Havells/
			Equivalent
а	24 Hours Analog Timer Switch with Shortest Switching		
	Time 30 Minutes	Each	2180.00
b	24 Hours Programmable Timer Switch with Shortest		
	Switching Time15 Minutes	Each	2315.00
С	Digital Weekly Programmable Timer Switch with		
	Shortest Switching Time 1 Minute	Each	2170.00
d	Astronomical Weekly Progrmmable Timer Switch	Each	2500.00
е	Staircase Light Timer Switch Adjustable		
	Range 5 to 20 Minutes	Each	1150.00
19	STARTERS FOR FLUORESCENT TUBES		
a.	Starters of capacity 20 Watts	Each	9.10
b.	Starters of capacity 40 Watts	Each	9.10
20	POLYSTER FILLED COPPER CHOKE 250V/50 HZ		
	GRADE SUITABLE FOR (PHILIPS/CROMPTON/WIPRO)		
a.	20 Watts fluorescent Tube	Each	162.00
b.	40 Watts fluorescent Tube	Each	162.00
c.	36/40W Electronic ballast for flu. Tube(Philips/Crompton)	Each	269.00
d.	36/40W Electronic ballast for flu. Tube (Indo Asean)	Each	219.00
21	CONDENSOR FOR S.V/ M.V LAMP		
a.	8 Mfd for 80 Watts Bulb	Each	98.80
b.	10 Mfd for 125 watts Bulb	Each	118.30
c.	15 Mfd for 250 Watts Bulb	Each	157.50

I tem No.	Description	Unit	Rates for 2018-19 in Rupees
d.	20 Mfd for 400 watts Bulb	Each	217.90
22	Battern type Bakelite holder for lamp	Each	15.80
23	Water tight bulk head fitting suitable for 100/60		
	watts lamp with guard heavy type		
	(PHILIPS/ BAJAJ/ CROMPTON GREAVES)	Each	263.40
24	Ceiling Rose	Each	13.15
25	Ceiling fixtures 250/300mm complete with Gallery etc.		
	Clear glass opac/ crystal suitable for 40/60 Watts Bulb	Each	155.20
26.	Ceiling Luminaire with Mirror Optics suitable for 2 Nos.		
	9 Watts/11 Watts (Philips, Crompton / Bajaj).	Each	983.20
	(FOR ITEMS 6 TO 14,24 & 25 THE RATES ARE		
	EXCLUSIVE OF COST OF TUBES AND LAMPS)		
27	Fan Clamp (12mm) with 6 mm MS Side Plates & Each		
	45cm cross arm	Each	105.00
28	CALL BELLS		
a.	Call bell/ Buzzar 6mm suitable for AC/DC	Each	39.50
b.	Push bell	Each	15.80
c.	Gong bell 9" size suitable for 250 V	Each	395.00
d.	Gong bell 12" size suitable for 250V	Each	572.00
29	WATER HEATER WITH ISI MARK (VENUS/RACILD/ EQUIVALENT)		
a.	Automatic Electrical Water Heater with copper container,		
	with Glass Wool/ Puf insulation with MS powder coated		
	shell suitable for 25 Litres capacity 230V/1000W	Each	4790.00
b.	Automatic Electrical Water Heater with copper container,		
	with Glass Wool/ Puf insulation with MS powder coated		
	shell suitable for 25 Litres capacity 230V/1000W	Each	6470.00
c.	Automatic Electrical Water Heater with copper container,		
	with Glass Wool/ Puf insulation with MS powder coated		
	shell suitable for 35 litres capacity 230V/1000W	Each	5550.00
d.	Automatic Electrical Water Heater with copper container,		
	with Glass Wool/ Puf insulation with MS powder coated		
	shell suitable for 35 litres capacity 230V/1000W	Each	7430.00
II	PART 'B'		
1.	FANS – CONFORMING TO ISS 374 / 1979		
a.	AC Ceiling fan complete 1200mm (48") sweep with		
	300mm Down rod.(without regulator)	Each	1090.00
b.	AC Ceiling fan complete 1400mm (56") sweep with		
	300mm Down rod. (Without regulator)	Each	1170.00
c.	Stepped electronic 300W/450W square type fan		
	regulator (Anchor Deluxe/Equivalent)	Each	185.50

Item	Description	Unit No.	1	Rates for 2018-19 in Rupees	
d.	Dimmer type electronic 300W/450W square				
	type fan regulator (Anchor Deluxe/Equivalent)	Each	148.	148.30	
e.	AC Ceiling fan complete 1200mm (48")				
	sweep with 300mm Down rod.(without				
	regulator) (Crompton / equivalent)	Each	1238	.00	
f.	AC Ceiling fan complete 1400mm (56")				
	sweep with 300mm Down rod (Without				
	regulator) (Crompton / equivalent)	Each	1335	.00	
2	EXHAUST FANS				
a.	AC Exhaust Fan 225 mm (9") sweep (Light duty)	Each	1010	.00	
b.	AC Exhaust Fan 300 mm (12") sweep (Light duty)	Each	1155	.00	
c.	AC Exhaust Fan 375 mm (15") sweep (Light duty)	Each	1190	.00	
d.	AC Exhaust Fan 450 mm (18") sweep (Light duty)	Each	1675	.00	
e.	AC Exhaust Fan 375 mm (15") sweep (Light duty)	Each	2200	.00	
f.	AC Exhaust Fan 450 mm (18") sweep (Light duty)	Each	2735	.00	
3	LOUVER SHUTTERS ARRANGEMENTS				
a.	MS/Fibre Louvers shutters arrangements				
	for 300mm AC Exhaust Fan	Each	210.90		
b.	MS/Fibre Louvers shutters arrangements				
	for 375mm AC Exhaust Fan	Each	223.40		
C.	MS/Fibre Louvers shutters arrangements				
	for 450mm AC Exhaust Fan	Each	250.		
4	CEILING FAN		Higher End	Lower End	
			Havells /	Almonard/	
			Crompton/	Equivalent	
			Usha /		
	101.0.11		Equivalent	1000.00	
a	48" Ceiling Fan 5 Star Rates	Each	1,393.00	1239.00	
b	48" Ceiling Fan Crompton High Speed	Each	1,385.00	1222.00	
5	DIMMER AND REGULATOR  For Stop Regulator 100W 1 Medulo	Each	324.00	222 00	
a b	Fan Step Regulator 100W - 1 Module Fan Step Regulator 100W - 2 Module	Each Each	370.00	233.00	
III	PART "C"	Latti	3/0.00	200.00	
1	SWITCHES				
a.	5 Amps (Flush type)	Dozen		184.00	
b.	5 Amps (Flush type staircase)	Dozen	+ +	229.00	
2	DOUBLE POLE SWITCHES(GEM / HPL /				
	HAVELLS / EQUIVALENT)				
a.	16 Amps DP Switch with metal clad				
	(front handle)	Each		395.00	

Item No.	Description	Unit	Rates for 2018-19 in Rupees
b.	32 Amps DP Switch with metal clad (front handle)	Each	810.00
c.	16 Amps DP Switch with metal clad (side handle)	Each	326.00
d.	32Amps DP Switch with metal clad (side handle)	Each	735.00
3.	TRIPLE POLE SWITCHES (SIDE HANDLE)		
	(STANDARD /HPL/HAVELLS/ EQUIVALENT)		
a.	100 Amps TPN Switch with HRC fuses sheet steel		
	double break	Each	5550.00
b.	125 Amps TPN Switch with HRC fuses sheet steel		
	double break	Each	6085.00
c.	200 Amps TPN Switch with HRC fuses sheet steel		
	double break	Each	7865.00
d.	315 Amps TPN Switch with HRC fuses sheet steel		
	double break	Each	11160.00
e.	400 Amps TPN Switch with HRC fuses sheet steel		
	double break	Each	14370.00
f.	16 Amps TPN Metal clad switch with rewirable fuse units	Each	843.00
g	32 Amps TPN Metal clad switch with rewirable fuse units	Each	1245.00
h	63 Amps TPN Metal clad switch with rewirable fuse units	Each	2710.00
I	100 Amps Metal clad switch with rewirable fuse units	Each	5335.00
j	200 Amps Metal clad switch with rewirable fuse units	Each	8100.00
4.	SWITCH DISCONNECTOR FUSE UNITS IN SHEET		
	STEEL ENCLOSURE (SDF) (L&T/SIEMENS)		
a	63 A TPN switch disconnector fuse units in sheet		2420.00
<u> </u>	steel enclosure with HRC fuses Double break	Each	3430.00
b	100 A TPN switch disconnector fuse units in sheet		F770 00
	steel enclosure with HRC fuses Double break	Each	5770.00
С	125 A TPN switch disconnnector fuse units in sheet steel enclosure with HRC fuses Double break.	Fach	6010.00
d	200 A TPN switch disconnector fuse units in sheet	Each	6810.00
"	steel enclosure with HRC fuses Double break	Each	8550.00
	250 A TPN switch disconnector fuse units in sheet	EdCII	6550.00
e	steel enclosure with HRC fuses Double break	Each	10670.00
f	315 A TPN switch disconnector fuse units in sheet	Lacii	10070.00
'	steel enclosure with HRC fuses Double break	Each	12790.00
g	400 A TPN switch disconnector fuse units in sheet	Lacii	12790.00
9	steel enclosure with HRC fuses Double break	Each	14670.00
5	SWITCH DISCONNECTOR FUSE UNITS IN OPEN	Lucii	14070.00
	EXECUTION (INTERIOR FOR CUBICAL)		
	(L&T/SIEMENS)		
a	63A TPN Switch disconnector fuse units interior only		
	with HRC fuses Double break	Each	2265.00
_ a	·	Each	2265.00

Item No.	Description	Unit	Rates for 2018-19 in Rupees
b	100 A TPN switch disconnnector fuse units interior		
	only with HRC fuses Double break.	Each	4120.00
С	125 A TPN switch disconnector fuse units interior		
	only with HRC fuses Double break.	Each	5620.00
d	200 A TPN switch disconnector fuse units interior		
	only with HRC fuses Double break.	Each	7250.00
е	250 A TPN switch disconnector fuse units interior		
	only with HRC fuses Double break.	Each	9450.00
f	315 A TPN switch disconnector fuse units interior		
	only with HRC fuses Double break.	Each	11880.00
g	400 A TPN switch disconnector fuse units interior		
	only with HRC fuses Double break.	Each	14020.00
6	FUSE UNITS (ANCHOR /EQUIVALENT)		
a.	16 Amps Porcelain fuse unit (500 V)	Each	45.60
b.	32 Amps Porcelain fuse unit (500 V)	Each	80.70
c.	63 Amps Porcelain fuse unit (500 V)	Each	180.00
d.	100 Amps Porcelain fuse unit (500 V)	Each	325.00
e.	200 Amps Porcelain fuse unit (500 V)	Each	526.00
7	SINGLE PHASE DBS (GEM / EQUIVALENT)		
a.	4 Way DB 16 Amps /Way with fuse & Neutral Each (250V)	Each	439.00
b.	6 Way DB 16 Amps /Way with fuse & Neutral Each (250V)	Each	597.00
c.	8 Way DB 16 Amps /Way with fuse & Neutral Each (250V)	Each	740.00
8	THREE PHASE DBS (GEM /EQUIVALENT)		
a.	4 Way TPDB 16A/Way with fuse & Neutral link	Each	1730.00
b.	6 Way TPDB 16A/Way with fuse & Neutral link	Each	2370.00
c.	8 Way TPDB 16A/Way with fuse & Neutral link	Each	2869.00
d.	4 Way TPDB 32A/Way with fuse & Neutral link	Each	2190.00
e.	6 Way TPDB 32A/Way with fuse & Neutral link	Each	2925.00
f.	8 Way TPDB 32A/Way with fuse & Neutral link	Each	3700.00
g.	4 Way TPDB 63A/Way with fuse & Neutral link	Each	5115.00
h.	6 Way TPDB 63A/Way with fuse & Neutral link	Each	6580.00
9	CHANGE OVER SWITCHES (GEM /HAVELLS / HPL/		
	STANDARD /EQUIVALENT)		
a.	16 Amps three phase 500 V 4 pole Change over switch	Each	1190.00
b.	32 Amps three phase 500 V 4 pole Change over switch	Each	1410.00
c.	63 Amps three phase 500 V 4 pole Change over switch	Each	3080.00
d.	100 Amps three phase 500 V 4 pole Change over switch	Each	4895.00
e.	200 Amps three phase 500 V 4 pole Change over switch	Each	9210.00

I tem No.	Description	Unit	Rates for 2018-19 in Rupees	
			Higher	Lower
			End	End Orbit /
			Crabtree	Oswin /
			/ legrand	ROMA
			/ Hager /	
			Equivalent	
10	MODULAR SWITCHES			
1	Switches 6A - 230V			
а	6A Switch 1W - 1 Module	Each	74.00	54.60
b	6A Switch 2W - 1 Module	Each	90.40	64.30
С	6A Switch 1W - 1 Module with Indicator	Each	99.40	70.90
d	6A Switch 1W - 1 Module with 'Light' Marking	Each	79.80	57.00
е	6A Switch 1W - 1 Module with 'Fan' Marking	Each	79.80	57.00
2	Switches 16A - 230V			
а	16A Switch 1W - 1 Module	Each	111.60	79.80
b	16A Switch 2W - 1 Module	Each	137.70	99.40
С	16A Switch 1W with Indicator - 1 Module	Each	131.20	94.50
3	Switches 20A - 230V			
а	20A 1W Switch - 1 Module	Each	145.00	104.30
b	20A DP 1W Switch - 2 Module	Each	242.00	173.00
С	20A DP 1W Switch with Indicator - 2 Module	Each	255.00	184.00
4	Switches 25A - 230V			
а	25A SP 1W Switch with Indicator - 1 Module	Each	158.00	114.00
5	Switches 32A - 230V			
а	32A DP Switch with Indicator - 2 Module	Each	308.00	223.00
11	PUSH BUTTONS			
а	6A Push Button SP - 1 Module	Each	100.00	72.50
b	6A Push Button SP with Indicator - 1 Module	Each	130.00	93.70
С	6A Bell Push - 1 Module	Each	99.40	70.90
d	6A Bell push with Indicator - 1 Module	Each	123.00	88.00
е	6A Bell Push - 2 Module	Each	130.00	93.70
f	6A Bell Push with Indicator - 2 Module	Each	153.00	110.00
12	MOTOR STARTER			
а	25A Motor Starter - 2 Module	Each	286.00	206.00
13	FLUSH MOUNTING BOXES (GI)			
а	Flush Box - 1/2 Module	Each	36.80	26.60
b	Flush Box - 3 Module	Each	43.10	31.30
С	Flush Box - 4 Module	Each	52.50	37.60
d	Flush Box - 6 Module	Each	82.30	59.50
е	Flush Box - 8 Module	Each	101.00	72.90

Item No.	Description	Unit	Rates for 2018-19 in Rupees	
f	Flush Box - 8 Module (2 row x 4)	Each	101.80	73.70
g	Flush Box - 12/16 (2 row x 6) Module Metal Box	Each	136.40	98.00
h	Flush Box - 18 Module Metal Box	Each	155.20	111.30
14	SURFACE MOUNTING BOXES (PLASTIC)			
а	Surface Box - 1/2 Module	Each	40.70	29.00
b	Surface Box - 3 Module	Each	43.10	31.30
С	Surface Box - 4 Module	Each	55.60	39.90
d	Surface Box - 6 Module	Each	72.10	52.50
е	Surface Box - 8 Module	Each	87.80	63.50
f	Surface Box - 8 (2 row x 4) Module	Each	101.90	73.70
g	Metal Surface Box - 12/16 (2 row x 6) Module	Each	154.40	111.30
h	Metal Surface Box - 18 Module	Each	196.80	141.10
15	COMBINED PLATES (PLASTIC)			
а	1 Metre Cover Plate	Each	60.30	43.90
b	2 Metre Cover Plate	Each	63.50	45.40
С	3 Metre Cover Plate	Each	76.80	54.80
d	4 Metre Cover Plate	Each	85.40	61.10
е	6 Metre Cover Plate	Each	119.90	86.20
f	8 Metre Cover Plate	Each	152.80	109.70
g	8 Metre Cover Plate (H)	Each	153.60	110.50
h	12 Metre Cover Plate	Each	191.30	138.00
i	18 Metre Cover Plate	Each	241.50	173.20
16	COMBINED PLATES (ALUMINIUM)			
а	1 Metre Cover Plate	Each	123.00	88.60
b	2 Metre Cover Plate	Each	129.30	93.30
С	3 Metre Cover Plate	Each	140.30	101.10
d	4 Metre Cover Plate	Each	158.30	113.70
е	6 Metre Cover Plate	Each	269.00	194.40
f	8 Metre Cover Plate	Each	297.00	214.80
g	8 Metre Cover Plate (H)	Each	378.00	272.00
h	12 Metre Cover Plate	Each	491.00	354.00
i	18 Metre Cover Plate	Each	648.00	466.00
IV	PART 'D'			
1	PLUG AND SOCKETS			
a.	5 Amps 3 pin and 2 pin combined flush type			
	wall socket only.	Each	22.90	
b.	5 Amps /15 amps.3 pin flush type wall socket only.	Each	51.70	
C.	5 Amps 3 pin Top	Each	32	.50
d.	15 Amps 3 pin Top	Each		.00
e.	15 Amps Flush type switch	Each	53	.60

I tem No.	Description	Unit	Rates for 2018-19 in Rupees	
f.	10 Amps M.C plug with 3 pin Top	Each	171.00	
g.	20 Amps M.C plug with 3 pin Top	Each	195.00	
2	SOCKET - 230V		Higher End Havells / Crompton/ Usha / Equivalent	Lower End Almonard/ Equivalent
а	16A 3 Pin Switched Socket - 3 Module	Each	368.00	265.00
b	6A 5 pin Universal Socket - 2 Module	Each	114.00	83.00
С	6/16A Socket - 3 Module	Each	207.00	149.00
d	6/16A Socket - 2 Module	Each	176.00	126.00
	New I tem			
e	25A Flush type Wall Socket with 25A DP MCB for AC Plug		_	768.00
3	SINGLE PHASE WATT HOUR METERS [HPL/EQUIVALENT)			
a.	AC single phase 230V/250V/50 HZ 5 Amps Watt Hour Meter	Each	912.00	
b.	AC single phase 230V/250V/50 HZ 10 Amps Watt Hour Meter	Each	912.00	
C.	AC single phase 230V/250V/50 HZ 20 Amps Watt Hour Meter	Each	912.	00
4	THREE PHASE WATT HOUR METERS			
	(ANCHOR / EQUIVALENT)			
a.	AC 3 phase 400V 50 HZ unbalanced load			
	4 wire 10 Amps Watt Hour Meter	Each	1880	.00
b.	AC 3 phase 400V 50 HZ unbalanced load			
	4 wire 25 Amps Watt Hour Meter	Each	1880	.00
c.	AC 3 phase 400 V 50 HZ unbalanced load			
	4 wire 50 Amps Watt Hour Meter	Each	2380	.00
V	PART 'E'			
1	SERVICE CONNECTION ACCESSORIES			
	LT. 1100V PVC ALUMINIUM CONDUCTOR	<u> </u>		
	ARMOURED UNDER GROUND CABLE WITH 19			20
a.	2 Core 10 sq. mm PVC armoured UG cable	Metre	84.8	
b.	2 Core 16 ag mm PVC armoured UG cable	Metre	103.	
C.	2 Core 16 sq.mm PVC armoured UG cable	Metre	112.	
d.	2 Core 25 sq.mm PVC armoured UG cable	Metre	127.	
е	$3^{1}/_{2}$ core 25 sq.mm. PVC Armoured UG Cable	Metre	191.70	
f	$3^{1}/_{2}$ core 35 sq.mm. PVC Armoured UG Cable	Metre	225.	70

Item No.	Description	Unit	Rates for 2018-19 in Rupees
g	3 <sup>1</sup> / <sub>2</sub> core 50 sq.mm. PVC Armoured UG Cable	Metre	294.00
h	3 <sup>1</sup> / <sub>2</sub> core 70 sq.mm. PVC Armoured UG Cable	Metre	377.00
i	3 <sup>1</sup> / <sub>2</sub> core 95 sq.mm. PVC Armoured UG Cable	Metre	488.00
j	3 <sup>1</sup> / <sub>2</sub> core 120 sq.mm. PVC Armoured UG Cable	Metre	596.00
k	3 <sup>1</sup> / <sub>2</sub> core 150 sq.mm. PVC Armoured UG Cable	Metre	706.00
I	3 <sup>1</sup> / <sub>2</sub> core 185 sq.mm. PVC Armoured UG Cable	Metre	863.00
m	3 <sup>1</sup> / <sub>2</sub> core 240 sq.mm. PVC Armoured UG Cable	Metre	1094.00
n	3 <sup>1</sup> / <sub>2</sub> core 300 sq.mm. PVC Armoured UG Cable	Metre	1342.00
0	3 <sup>1</sup> / <sub>2</sub> core 400 sq.mm. PVC Armoured UG Cable	Metre	1710.00
р	4 core 6 sq.mm. PVC Armoured UG Cable	Metre	109.80
q	4 core 10 sq.mm. PVC Armoured UG Cable	Metre	120.30
r	4 core 16 sq.mm. PVC Armoured UG Cable	Metre	158.60
2	PVC INSULATED SINGLE CORE MULTI STRAND FIRE		
	RETARDANT FLEXIBLE COPPER CABLE WITH		
	ISI MARK CONFORMING TO IS 694/1990		
a.	14/0.3 ( 1 sq.mm )	Metre	8.30
b.	22/0.3 ( 1.5 sq.mm )	Metre	13.10
c.	36/0.3 ( 2.5 sq.mm )	Metre	20.30
d.	56/0.3 ( 4 sq.mm )	Metre	32.20
e.	84/0.3 ( 6 sq.mm )	Metre	47.70
f.	140/0.3 ( 10 sq.mm )	Metre	71.60
g.	101/0.45 ( 16 sq.mm )	Metre	117.00
h.	168/0.45 ( 25 sq.mm )	Metre	257.00
3	CONDUCTOR		
a.	Hard drawn copper conductor(Gauge No.8 & 6)	KG	483.00
b.	14 SWG TC wire	KG	495.00
c.	GI No.8 wire and No. 6 wire	KG	79.70
4	CABLE GLANDS		
a.	Cable gland suitable for 2 core 4 sq.mm UG cable	Each	17.50
b.	Cable gland suitable for 2 core 6 sq.mm UG cable	Each	21.80
c.	Cable gland suitable for 2 core 10 sq.mm UG cable	Each	26.00
d.	Cable gland suitable for 2 core 16 sq.mm UG cable	Each	38.50
e.	Cable gland suitable for 2 core 25 sq.mm UG cable	Each	46.00
f.	Cable gland suitable for 3½ core 25 sq.mm UG cable	Each	46.00
g.	Cable gland suitable for 3½ core 35 sq.mm UG cable	Each	58.40
h.	Cable gland suitable for 3½ core 50 sq.mm UG cable	Each	58.40
I	Cable gland suitable for 3½ core 70 sq.mm UG cable	Each	72.00
j	Cable gland suitable for 3½ core 95 sq.mm UG cable	Each	87.90
k	Cable gland suitable for 3½ core 120 sq.mm UG cable	Each	111.90
ı	Cable gland suitable for 3½ core 150 sq.mm UGcable	Each	147.30
m	Cable gland suitable for 3½ core 185 sq.mm UGCable	Each	174.20

Item No.	Description	Unit	Rates for 2018-19 in Rupees
n	Cable gland suitable for 3½ core 240 sq.mm UG cable		174.20
0	Cable gland suitable for 3½ core 300 sq.mm UGcable	Each	208.00
р	Cable gland suitable for 3 ½ core 400 sq.mm UGcable	Each	296.00
q	Cable gland suitable for 3 ½ core 500 sq.mm UG cable	Each	345.00
r	Cable gland suitable for 4 core 6 sq.mm UG cable	Each	21.80
S	Cable gland suitable for 4 core 10 sq.mm UG cable	Each	26.00
t	Cable gland suitable for 4 core 25 sq.mm UG cable	Each	46.00
5	FUSE WIRE(COPPER)		
a.	5 Amps fuse wire	Kg	483.00
b.	10 Amps fuse wire	Kg	483.00
c.	20 Amps fuse wire	Kg	483.00
6	NEUTRAL LINK 15 AMPS		
a.	4 way Neutral Link	Each	24.00
b.	6 way Neutral Link	Each	35.50
c.	8 way Neutral Link	Each	44.30
d.	12 way Neutral Link	Each	64.30
VI	PART 'F'		
1	M.S. BOX WITH PAINTING (16 SWG)		
a.	M.S Box of Size (100 x 100 x 75mm)	Each	38.70
b.	M.S Box of Size (150 x 100 x 75mm)	Each	53.50
c.	M.S Box of Size (200 x 150 x 75mm)	Each	87.00
d.	M.S Box complete with Lock & Key arrangements		
	with painting of size (300 x 200 x 100 mm)	Each	263.00
VII	PART 'G'		
1	MS ANGLES		
a.	1½" x 1½" x 1/4" (37.5 x 37.5 x 6.24 mm)(1M= 3.25 Kg)	KG	43.90
b.	1½"x 1½" x ½" (37.5 x 37.5 x 12.5mm)	KG	43.90
c.	2" x 2" x ½" (50 x 50 x 12.5 mm)	KG	43.90
2	ALUMINI UM FLAT		
a.	Aluminium Flat (1"x 1/4") (25x 6.25 mm)	KG	152.80
b.	Aluminium Flat ( 1"x1/8")	KG	152.80
3	COPPER FLAT		
a.	Copper Flat (25 x 3 mm)	KG	443.00
b.	Copper Flat (25 x 6 mm)	KG	443.00
c.	Copper Flat (33 x 6 mm)	KG	443.00
d.	Copper Flat (50 x 6 mm)	KG	443.00
4	POWER CAPACITOR		
a.	Power capacitor for power factor improvement with oil		
	filled with discharge resistance 3 phase 415/440V 50 Hz		
	conforming to IS:2384 with ISI marking	KVAR	301.00

Item No.	Description	Unit	Rates for 2018-19 in Rupees
VIII	PART 'H'		
1	CONDUIT MATERIALS 16 Gauge		
a.	Conduit pipe 16 mm (5/8") Heavy Gauge	Metre	26.30
b.	Conduit pipe 19 mm (3/4") Heavy Gauge	Metre	27.20
c.	Conduit pipe 25 mm (1") Heavy Gauge	Metre	33.40
d.	Conduit pipe 32 mm (1¼") Heavy Gauge	Metre	43.90
e.	Conduit pipe 38 mm (1½") Heavy Gauge	Metre	51.70
2	CONDUIT TEE BENDS		
a.	Conduit Tee bends 16 mm (5/8")	Dozen	73.70
b.	Conduit Tee bends 19 mm (3/4")	Dozen	74.40
c.	Conduit Tee bends 25 mm (1")	Dozen	89.30
d.	Conduit Tee bends 32 mm (1¼")	Dozen	92.50
e.	Conduit Tee bends 38 mm (1½")	Dozen	115.20
f.	Conduit Tee bends 50 mm (2")	Dozen	144.00
3	CONDUIT BENDS 16 Gauge		
a.	Conduit solid bends 16 mm (5/8")	Dozen	69.70
b.	Conduit solid bends 19 mm (3/4")	Dozen	77.60
c.	Conduit solid bends 25 mm (1")	Dozen	91.70
d.	Conduit solid bends 32 mm (1¼")	Dozen	108.20
e.	Conduit solid bends 38 mm (11/2")	Dozen	153.60
f.	Conduit solid bends 50 mm (2")	Dozen	188.00
4	CONDUIT INSPECTION BEND 16 Gauge		
a.	Conduit Inspection bends 16 mm (5/8")	Dozen	69.70
b.	Conduit Inspection bends 19 mm (3/4")	Dozen	72.10
c.	Conduit Inspection bends 25 mm (1")	Dozen	92.50
d.	Conduit Inspection bends 32 mm (1 ¼")	Dozen	111.30
e.	Conduit Inspection bends 38mm (11/2")	Dozen	144.20
f.	Conduit Inspection bends 50mm (2")	Dozen	163.80
g.	Conduit Inspection bends 65mm (2½")	Dozen	210.90
IX	PART 'I '		
1	PVC (RIGID) PIPES (1.8 MM THICK) WITH ISI MARK		
a.	PVC rigid pipes 16mm (5/8")	Metre	11.20
b.	PVC rigid pipes 20mm (3/4")	Metre	16.30
c.	PVC rigid pipes 25mm (1")	Metre	24.20
d.	PVC rigid pipes 32mm (1¼")	Metre	36.60
e.	PVC rigid pipes 40mm (1½")	Metre	52.30
f.	PVC rigid pipes 50mm (2")	Metre	78.30

Item No.	Description	Unit	Rates for 2018-19 in Rupees
2	PVC RIGID BENDS		
a.	PVC rigid bends 16mm (5/8")	Each	2.60
b.	PVC rigid bends 20mm (3/4")	Each	2.60
c.	PVC rigid bends 25mm (1")	Each	3.55
d.	PVC rigid bends 32mm (1¼")	Each	6.35
e.	PVC rigid bends 40mm (1½")	Each	15.80
f.	PVC rigid bends 50mm (2")	Each	19.20
3	PVC COUPLES		
a.	PVC Couples 16mm (5/8")	Dozen	11.25
b.	PVC Couples 19mm (3/4")	Dozen	11.25
c.	PVC Couples 25mm (1")	Dozen	21.95
d.	PVC Couples 32mm (1¼")	Dozen	50.10
e.	PVC Couples 38mm (11/2")	Dozen	107.40
f.	PVC Couples 50mm (2")	Dozen	112.10
4	PVC TEES		
a.	PVC Tees 16mm (5/8")	Dozen	11.25
b.	PVC Tees 19mm (3/4")	Dozen	13.05
c.	PVC Tees 25mm (1")	Dozen	16.70
d.	PVC Tees 32mm (1¼")	Dozen	74.80
e.	PVC Tees 38mm (11/2")	Dozen	240.00
f.	PVC Tees 50mm (2")	Dozen	263.00
5	PVC Saddles		
a.	PVC Saddles 16 mm (5/8")	Dozen	2.60
b.	PVC Saddles 19mm (3/4")	Dozen	3.00
c.	PVC Saddles 25mm (1")	Dozen	3.45
d.	PVC Saddles 32mm (1¼")	Dozen	4.35
e.	PVC Saddles 38mm (1½")	Dozen	5.25
f.	PVC Saddles 50mm (2")	Dozen	10.50
6	PVC JUNCTION BOXES		
a.	Junction boxes 1,2,3 & 4 way 16 mm (5/8")	Dozen	35.10
b.	Junction boxes 1,2,3 & 4 way 19 mm (3/4")	Dozen	35.10
c.	Junction boxes 1,2,3 & 4 way 25 mm (1")	Dozen	41.30
d.	Junction boxes 1,2,3 & 4 way 32 mm (11/4")	Dozen	91.70
e.	Junction boxes 1,2,3 & 4 way 38 mm (11/2")	Dozen	108.90
7	PVC Hylem sheets		
a.	Hylem sheet 3 mm thick	Sq.m	537.00
8	Insulation Tape PVC		
a.	PVC Insulation Tape (19mm)	Roll/10 mts	13.05
b.	Empire Tape (12 mm)	Roll/10 mts	17.55
C.	Empire Tape (19 mm)	Roll/10 mts	21.05

Item No.	Description		Unit	Rates for 2018-19 in Rupees
Х	PART 'J'			
1	TEAK WOOD MATERIALS			
	T.W. BOX CONCEALED TYPE			
a.	T.W. Box concealed type 12"x8"x3"		Each	66.00
b.	T.W.Box concealed type 8"x6"x3"		Each	35.10
c.	T.W. Box concealed type 6"x4"x3"		Each	15.70
d.	T.W. Box concealed type 4"x4"x3"		Each	13.05
e.	T.W. plugs 1½" x 1" x2"		1000 Nos.	272.00
f.	T.W. Round blocks		100 Nos.	527.00
ΧI	PART 'K'			
1	CRIMPING LUGS SUITABLE FOR THE FOLLOWI	NG SI ZES	3	
	Size		Aluminium	Copper
a.	4 Sq.mm	Each	1.25	3.75
b.	6 Sq.mm	Each	1.40	3.75
c.	10 Sq.mm	Each	1.80	4.75
d.	16 Sq.mm	Each	1.80	5.70
e.	25 Sq.mm	Each	2.75	9.55
f.	35 Sq.mm	Each	3.65	10.50
g.	50 Sq.mm	Each	5.45	12.40
h.	70 Sq.mm	Each	7.30	20.10
i.	95 Sq.mm	Each	8.30	24.90
j.	120 Sq.mm	Each	11.05	34.40
k.	150 Sq.mm	Each	14.70	44.00
I.	185 Sq.mm	Each	19.30	67.00
m.	225 Sq.mm	Each	28.60	95.60
n.	240 Sq.mm	Each	31.30	95.60
0.	300 Sq.mm	Each	43.30	129.00
р.	400 Sq.mm	Each	64.60	196.00
2	CABLE ROUTE INDICATOR			
a.	Cable route indicator for L.T/ cable		Each box	63.90
b	Cable route indicator for H.T/ cable		Each box	63.90
XII	PART ' L '			
1	BRASS SCREWS			
a.	Brass Screws (20mm) ¾" No.6		Gross	57.10
b	Brass Screws (25mm) 1" No.6		Gross	61.50
С.	Brass Screws (40mm) 11/2" No.6		Gross	65.90
d.	Brass Screws (20mm) 3/4" No.8		Gross	57.10
e.	Brass Screws (25mm) 1" No.8		Gross	61.50
f.	Brass Screws (50mm)2" No.10		Gross	127.00

Item No.	Description		Unit	Rates for 2018-19 in Rupees
g.	Brass screws (75mm)3" No.10		Gross	188.00
2	Coach screws 2"x1/4" (50 x 6.25mm)		Dozen	11.35
3	CONDUIT SADDLES			
a.	Conduit Saddles 16mm (5/8")		Gross	35.10
b	Conduit Saddles 19mm (3/4")		Gross	37.40
c.	Conduit Saddles 25mm (1")		Gross	43.90
d.	Conduit Saddles 32mm (1¼")		Gross	57.10
e.	Conduit Saddles 38mm (1½")		Gross	70.00
f.	Conduit Saddles 50mm (2")		Gross	79.00
g.	Conduit Saddles 65mm (2½")		Gross	90.00
4	SODIUM VAPOUR FITTINGS & LAMP			
	(For External Electrification & Campus light	ting)		
a.	250 Watts Sodium Vapour fittings		Each	2890.00
b	250 Watts Sodium Vapour lamp		Each	639.00
C.	150 Watts Sodium Vapour fittings		Each	2850.00
d.	150 Watts Sodium Vapour lamp		Each	548.00
e.	70 Watts Sodium Vapour fittings		Each	2300.00
f.	70 Watts Sodium Vapour lamp		Each	365.00
5	SODIUM VAPOUR LAMP FITTING SINGLE PIE	CE		
	DIE CAST ALUMINIUM HOUSING & LAMP FOR	₹		
	HEAVY TRAFFIC ROADS (PHILIPS/ CROMPTO	ON		
	CREAVES/ WIPRO/BAJAJ)			
a.	400 Watts sodium vapour fittings		Each	8640.00
b.	400 Watts sodium vapour lamp		Each	896.00
C.	250 Watts sodium vapour fittings		Each	5900.00
d.	250 Watts sodium vapour lamp		Each	725.00
e.	150 Watts sodium vapour fittings		Each	5540.00
f.	150 Watts sodium vapour lamp		Each	595.00
g.	70 Watts sodium vapour fittings		Each	2370.00
h.	70 Watts sodium vapour lamps		Each	410.00
6	MINIATURE CIRCUIT BREAKERS 240 V/415 V		Legrand/	All other
	50HZ AC SUPPLY SUITABLE FOR BOTH		Hager /	makes
	LIGHTING AND MOTOR CIRCUITS.		Equivalent	with ISI
		(Unit)	'	(Std.) /
		` '		HPL/
				Havells /
				Equivalent)
				' ' '
<u> </u>	Single pole 6A to 32A,10 KA	Each	167.00	122.00
a.	I single pole on to sen, to the			1 122.00

Item No.	Description	Unit	2018	es for 8-19 Ipees
			Legrand	All other
			(MDS)/	Makes
			Hager	with ISI
			(L&T)	(Std)/
				HPL/
				Havell's/
				equivalent)
C.	Single pole & Neutral 6A to 32A, 10 KA	Each	488.00	370.00
d.	Single pole & Neutral 40A, 10 KA	Each	792.00	512.00
e.	Double pole 6A to 32A, 10 KA	Each	488.00	406.00
f.	Double pole 40A, 10 KA	Each	792.00	556.00
g.	Triple pole 6A to 32A, 10 KA	Each	785.00	613.00
h.	Triple pole 63A , 10 KA	Each	1195.00	975.00
I	Triple pole & Neutral 6A to 32A, 10 KA	Each	1035.00	798.00
j.	Triple pole & Neutral 63A, 10 KA	Each	1545.00	1230.00
k.	Four pole 6A to 32A, 10 KA	Each	1035.00	855.00
l.	Four pole 63A, 10 KA	Each	1545.00	1310.00
7	PLUG AND SOCKETS IN SHEET STEEL			
	ENCLOSURE WITHOUT MCBS			
a.	10A single Pole	Each	809.00	480.00
b	20A Single Pole	Each	864.00	485.00
C.	20A Double Pole	Each	935.00	_
d.	20A Triple Pole	Each	1585.00	920.00
e.	32A Triple Pole	Each	1890.00	1245.00
f.	63A Triple Pole	Each	7700.00	_
	New I tem			
8	Sheet Steel Enclosure for MCB's		Legrand/	Havelet/
			Equivalent	Equivalent
a	2 Pole	Each	359.00	250.00
b	4 pole	Each	525.00	305.00
9	RCCB/ ELCB			
a.	10 Amps 30 MA DP	Each	2280.00	1675.00
b	25 Amps 30 MA DP	Each	1880.00	1440.00
c.	40 Amps 30 MA DP	Each	2080.00	1520.00
10	RCCB/ELCB (FOUR POLE)			
a.	25 Amps 30 MA	Each	2590.00	1775.00
b	40 Amps 30 MA	Each	2620.00	1815.00
C.	63 Amps 30 MA	Each	3030.00	2060.00
11	HRC FUSES			
a.	16 Amps	Each	58.40	28.60
b	32 Amps	Each	60.60	47.90

Item No.	Description	Unit	Rates for 2018-19 in Rupees		
c.	63 Amps	Each	125.00	60.20	
d.	125 Amps	Each	292.00	133.50	
e.	160 Amps	Each	365.00	180.00	
f.	200 Amps	Each	376.00	180.00	
g.	250 Amps	Each	522.00	266.00	
12	MCB I SOLATORS				
			Legrand	All other	
			(MDS)/	makes	
			Hager	with ISI	
			(L&T) /	(Std.) /	
			Equivalent	HPL/	
				Havells /	
				Equivalent)	
a	32A -DP	Each	257.00	_	
b	32A - TP	Each	429.00	_	
С	32A -FP	Each	490.00	_	
d	40A -DP	Each	355.00	246.00	
е	40A - TP	Each	614.00	451.00	
f	40A -FP	Each	789.00	551.00	
g	63A -DP	Each	476.00	312.00	
h	63A - TP	Each	714.00	491.00	
i	63A -FP	Each	864.00	575.00	
j	100A -DP	Each	_	403.00	
k	100A - TP	Each	570.00	640.00	
I	100A -FP	Each	910.00	700.00	
XIII	PART "M"				
	New Items				
1	TRANSFORMERS			Kirloskar/	
			Unit	CREL/	
				Rowsons /	
				(OEM	
a	250 KVA, 11 KV / 433 V Outdoor Oil Cooled Transf	ormer			
<u> </u>	with off Circuit (As per IS 1180-Level 2)	Each	805000.00		
b	500 KVA, 11 KV / 433 V Outdoor Oil Cooled Transformer			1105000 00	
_	with off Circuit (As per IS 1180-Level 2)		Each	1105000.00	
С	630 KVA, 11 KV / 433 V Outdoor Oil Cooled Transf	ormer		1415000 00	
	with off Circuit (As per IS 1180-Level 2)		Each	1415000.00	
d	1000 KVA, 11 KV / 433 V Outdoor Oil Cooled Trans	Each	1905000 00		
	with off Circuit (As per IS 1180-Level 2) Each 180			1805000.00	

Item No.	<b>Description Unit</b>	20	tes for 18-19 Rupees
е	250 KVA, 22 KV / 433 V Outdoor Oil Cooled Transformer		
	with off Circuit (As per IS 1180-Level 2)	Each	905000.00
f	500 KVA, 22 KV / 433 V Outdoor Oil Cooled Transformer		
	with off Circuit (As per IS 1180-Level 2)	Each	1205000.00
g	630 KVA, 22 KV / 433 V Outdoor Oil Cooled Transformer		
	with off Circuit (As per IS 1180-Level 2)	Each	1515000.00
h	1000 KVA, 22 KV / 433 V Outdoor Oil Cooled Transformer		
	with off Circuit (As per IS 1180-Level 2)	Each	1905000.00
2	11 KV INDOOR VACCUM CIRCUIT BREAKER		Megawin/
			Pentagon/
			(OEM)
а	11 KV, 25 KA, 630 A, HT Indoor Single Panel Vaccum		
	Circuit Breaker (1 I/C + 2 O/G) complete as per		
	specification	Each	391000.00
b	11 KV, 25 KA, 630 A, HT Indoor Three Panel Vaccum		
	Circuit Breaker (1 I/C + 2 O/G) complete as per		
	specification	Each	995000.00
С	11 KV, 25 KA, 630 A, HT Indoor Four Panel Vaccum		
	Circuit Breaker (1 I/C + 2 O/G) complete as per		
	specification	Each	1411000.00
d	11 KV, 25 KA, 630 A, HT Indoor Five Panel Vaccum		
	Circuit Breaker (1 I/C + 2 O/G) complete as per		
	specification	Each	1692000.00
3	11 KV OUTDOOR VACCUM CIRCUIT BREAKER		Megawin/
			Pentagon/
			(OEM)
a	11 KV, 25 KA, 630 A, HT Outdoor Single Panel Vaccum		
	Circuit Breaker (1 I/C + 2O/G) complete as per		
	specification	Each	408000.00
b	11 KV, 25 KA, 630 A, HT Outdoor Three Panel Vaccum		
	Circuit Breaker (1 I/C + 20/G) complete as per		
	specification	Each	1020000.00
С	11 KV, 25 KA, 630 A, HT Outdoor Four Panel Vaccum		
	Circuit Breaker (1 I/C + 2O/G) complete as per		
	specification	Each	1428000.00
d	11 KV, 25 KA, 630 A, HT Outdoor Five Panel Vaccum		
	Circuit Breaker (1 I/C + 2O/ G) complete as per		
	specification	Each	1709000.00

Item No.	Description	Unit	Rates for 2018-19 in Rupees
4	11 KV INDOOR RING MAIN GEAR (RMG)		Megawin /
			Voltech /
			(OEM)
а	11 KV, 25 KA, 630 A, HT Indoor Three Panel Ring		
	Main Gear complete as per specification	Each	569000.00
5	11 KV OUTDOOR RING MAIN GEAR (RMG)		Megawin /
			Voltech /
			(OEM)
а	11 KV, 25 KA, 630 A, HT Outdoor Three Panel Ring		
	Main Gear complete as per specification	Each	595000.00
6	HT CABLES		Polycab /
			Equivalent
а	240 sq.mm. 3 core HT XLPE 11KV (E)		
	SISMV11E3 x 2402797	Mtr	1650.00
b	300 sq.mm. 3 core HT XLPE 11KV (E)		
	SISMV11E3 x 3002797	Mtr	1920.00
С	300 sq.mm. 3 core HT XLPE 11KV (UE)		
	SISMV11U3 x 3002424	Mtr	2250.00
7	CABLES, ACCESSORIES AND KITS		Raychem
			RPG/
			Equivalent
а	120-185 sq.mm. 3 core HT Cable Indoor Terminations		
	XLPE 11KV (E) - EPKT 3111	Each	9240.00
b	240-300 sq.mm. 3 core HT Cable Indoor Terminations		
	XLPE 11KV (E) - EPKT 3121	Each	9860.00
С	120-185 sq.mm. 3 core HT Cable Outdoor Terminations		
	XLPE 11KV (E) - EPKT 3362	Each	12770.00
d	240-300 sq.mm. 3 core HT Cable Outdoor Terminations		
	XLPE 11KV (E) - EPKT 3372	Each	14360.00
е	240-400 sq.mm. 3 core HT Cable Indoor Terminations		
	11 KV (UE) - Belted PILC Cables - EPKT 4685	Each	13020.00
f	240-400 sq.mm. 3 core HT Cable Outdoor Terminations		
	11 KV (UE) - Belted PILC Cables - EPKT 4961	Each	17280.00
g	150-185 sq.mm. 3 core HT Cable Outdoor Terminations		
	22KV(E) Screened XLPE Cables - EPKT 5363	Each	18310.00
h	240-400 sq.mm. 3 core HT Cable Outdoor Terminations		
	22KV(E) Screened XLPE Cables-EPKT 5373	Each	24350.00
i	185-240 sq.mm 3 core HT Cables Straight Through		
	Joints 22KV (E) Screened XLPE Cables-EPKJ 5118	Each	48000.00
j	300-400 sq.mm. 3 core HT Cable Straight Thorugh		
	Joints 22KV (E) Screened XLPE Cables - EPKJ 5119	Each	53500.00

Item No.	Description	Unit	Rate 2018 in Ru	
XIV	PART "N"		3 Star	5 Star
1	SUPPLY & INSTALLATION OF		Rated	Rated
	AIR-CONDITIONER WITH COPPER COIL		(Carrier /	Inverter
			Voltas /	(Carrier /
			Blue	Voltas/
			Star /	O General/
			1	·
	4 F TD C I'll T		Equivalent)	Equivalent)
a	1.5 TR Split Type AC Unit	Each	30000.00	40000.00
b	2.0 TR Split Type AC Unit	Each	40000.00	51000.00
	New I tems			
С	Supply and installation of 4 KVA capacity			
	Automatic Voltage			
	Stabilizer with time delay relay			
	(V-Gurad / Equivalent)	Each	402	0.00
d	Supply and installation of 5 KVA capacity			
	Automatic Voltage			
	Stabilizer with time delay relay		146	T 00
	(V-Gurad / Equivalent) Supply and laying of 5/8" and 3/8" copper pipe	Each	446	5.00
e	(Extra beyond 3 metres supplied with AC unit)	Each	QΕ	0.00
f	Supply and fixing of MS stand for	Lacii	0.3	0.00
'	fixing outdoor unit	Each	98	5.00
	SUPPLY, INSTALLATION, TESTING,		1	3.00
2	COMMISSIONING AND HANDING OVER OF			
	AIR-COOLED SELF CONTAINED DUCTABLE			
	AC UNITS			
			ETA (C	
a	3.0 TR Ceiling Supsended Ductable Unit	Each	8870	
b	5.0 TR Ceiling Supsended Ductable Unit	Each	15300	
С	8.5 TR Ceiling Supsended Ductable Unit	Each	20890	
d	11 TR Ceiling Supsended Ductable Unit	Each	26950	0.00
	New I tem	F'	20000	0.00
e f	17 TR Ceiling Supsended Ductable Unit 5.5 TR Floor Mounted Ductable Unit	Each	39000	
	8.5 TR Floor Mounted Ductable Unit	Each Each	32400 33400	
g h	11 TR Floor Mounted Ductable Unit	Each	36800	
i	17 TR Floor Mounted Ductable Unit	Each	52400	
<u> </u>	New I tem	Lucii	32400	
j	25 TR Floor Mounted Ductable Unit	Each	63096	0.00
	New Items			
3	ACCESSORIES FOR PACKAGE AC		1	
а	Supply and filling of R-22 Refrigerant Gas	KG	51	8.00
b	Supply and fixing of Copper Refrigerant Piping of 7/8" dia	RM	93	8.00
С	Supply and fixing of Flexible Canvas Connection	Each		0.00

I tem No.	Description	Unit	Rates for 2018-19 in Rupees
d	Supply and fixing of 50mm thick Anti		
	Vibrating Rubber Pads	RM	491.00
е	Supply, Fabrication and erection of		
	fabricated ducting		
	made up of GI Sheets of 24 Gauge thickness	RM	768.00
f	Supply, Fabrication and erection of fabricated ducting		
	made up of GI sheets of 22 Gauge thickness	Sqm.	1027.00
g	Supply, Fabrication and erection of fabricated ducting		
	made up of GI sheets of 20 Gauge thickness	Sqm.	1276.00
h	Supply and fixing of extruded aluminum powder coated,		
	Supply and return Air Grilles / Diffusers with Volume		
	Control Damper	Sqm.	7143.00
i	Supply and fixing of water drain pipe line (1" PVC Pipe)	Sqm.	58.00
j	Supply, fabrication and fixing of MS Channel for Mounting		
	the Airconditioning Indoor Unit	Each	6607.00
k	Supply, fabrication and fixing of Ms Channel for Mounting		
	the Airconditioning Oudoor Unit	RM	5625.00
I	Supply and providing of pipeline nitrle rubber insulation		
	for Refrigerant and drain pipe lines.	Each	50.00
m	Supply and fixing of Duct Mouth Dampers	Set	2142.00
n	Supply and providing acoustic for initial portion of		
	ducting with 12mm thick Fibre Glass Rigid Board covered		
	with Tissue Paper and Aluminum Perforated Sheet	Sqm.	761.00
0	Supply and providing thermal insulation of 9mm thick		
	vidoflex with Aluminum Foil	Sqm.	741.00
р	Supply and providing Civil Concrete Block for Mounting		
	the Airconditioning Unit	Each	637.00
q	Supply and laying of 30 sq.mm. incoming cable	RM	346.00
r	Supply and providing of 10 sq.mm. copper flexible single cable	RM	80.00
s	Supply and providing of 1.5 sq.mm. copper flexible cable	RM	18.00
t	Supply and providing of 0.5 sq.mm. 4 core flexible signal cable	RM	15.00
4	GENERATORS WITH STANDARD PANEL		Kirloskar/
			Ashok
			Leyland /
			Equivalent
а	5 KVA	Each	183000.00
b	7.5 KVA	Each	191000.00
С	10 KVA	Each	216000.00
d	15 KVA	Each	232000.00
е	20 KVA	Each	244000.00

Item No.	Description	Unit	Rates for 2018-19 in Rupees
f	30 KVA	Each	297000.00
g	35 KVA	Each	317000.00
h	40 KVA	Each	370000.00
i	45 KVA	Each	432000.00
<b>j</b>	62.5 KVA	Each	497000.00
k	82.5 KVA	Each	586000.00
I	100 KVA	Each	652000.00
m	125 KVA	Each	749000.00
n	160 KVA	Each	1018000.00
0	200 KVA	Each	1243000.00
р	250 KVA	Each	1400000.00
	New I tem		
5	GENERATORS WITH AUTO MAIN FAILURE (AMF) PANEL		Kirloskar /
			Ashok
			Leyland /
	C2 F1///A	Cb	Equivalent
a	62.5 KVA	Each	597000.00
b c	82.5 KVA 100 KVA	Each Each	686000.00 852000.00
d	125 KVA	Each	949000.00
e	160 KVA	Each	1218000.00
f	200 KVA	Each	1443000.00
g	250 KVA	Each	1600000.00
6	Exhaust Pipe with Silencer	RM	2000.00
7	PASSENGER LIFTS (G+3)		Johnson /
			Kone /
			OTIS/
			Equivalent
	SS 304 Grade with 1m/sec. speed with ARD		<u> </u>
Α	8 Persons Passenger Lift Car Size (1300 x 1100)		
а	Gearless Lift with Machine Room	Each	1378000.00
b	Gearless Lift without Machine Room	Each	1444000.00
В	10 Persons Passenger Lift Car Size (1300 x 1350)		Johnson /
			Kone /
			OTIS/
			Equivalent
a	Gearless Lift with Machine Room	Each	1441000.00
b	Gearless Lift without Machine Room	Each	1510000.00
С	13 Persons Passenger Lift Car Size (2000 x 1100)		Johnson /
			Kone /
			OTIS/
	Gearless Lift with Machine Room	Each	Equivalent
a		Each	1603000.00
b	Gearless Lift without Machine Room	Each	1677000.00

Item No.	Description	Unit	Rates for 2018-19 in Rupees
D	20 Persons Passenger Lift Car Size (2000 x 1500)		Johnson /
			Kone /
			OTIS/
			Equivalent
a	Gearless Lift with Machine Room	Each	1993000.00
b	Gearless Lift without Machine Room	Each	2118000.00
	Further increase of rate per floor for every additional		
	floor Rs.1,00,000/- per floor. Comprehensive servicing		
	and maintenance of lifts for further period of 2 years		
	beyond free warranty period of one year from the date		
	of commissioning of lifts will be paid at the rate of 5%		
	of capital cost of lift		
8	BED-CUM-PASSENGER LIFTS (G+3)SS 304 Grade		
	with 1m/sec. speed with ARD		
Α	15 Persons Passenger Lift Car Size (1000 x 2400)		Kone /
			Equivalent
а	Gearless Lift with Machine Room	Each	1750000.00
b	Gearless Lift without Machine Room	Each	1860000.00
В	20 Persons Passenger Lift Car Size (1300 x 2400)		
а	Gearless Lift with Machine Room	Each	2090000.00
b	Gearless Lift without Machine Room	Each	2177000.00
С	26 Persons Passenger Lift Car Size (1600 x 2400)		
a	Gearless Lift with Machine Room	Each	2375000.00
b	Gearless Lift without Machine Room	Each	2560000.00
	Further increase of rate per floor for every additional		
	floor Rs.1,00,000/- per floor. Comprehensive servicing		
	and maintenance of lifts for further period of 2 years		
	beyond free warranty period of one year from the date		
	of commissioning of lifts will be paid at the rate of 5%		
	of capital cost of lift		
XV	PART "O"		1
1	GI STEEL TUBULAR POLE FOR STREET LIGHT		Kumaran
			Pole /
			Oriental
			Pole /
	4 Mahar Langeth Cingle D. L. D. L. W. D. St.		Equivalent
a	4 Metre Length Single Bracket Pole with Base Plate		
	(250 x 250 x 6mm)		6405.05
	76.10mm OD x 3.65mm Thick x 4000mm Length	Each	6185.00
b	4 Metre Length Double Bracket Pole with Base Plate		
	(250 x 250 x 6mm)		
	76.10mm OD x 3.65mm Thick x 4000mm Length	Each	7040.00

Item No.	Description	Unit	Rates for 2018-19 in Rupees
С	6 Metre Length Single Bracket Pole with Base Plate		
	(250 x 250 x 6mm)		
	76.10mm OD x 3.65mm Thick x 6000mm Length	Each	7395.00
d	6 Metre Length Double Bracket Pole with Base Plate		
	(250 x 250 x 6mm)		
	76.10mm OD x 3.65mm Thick x 6000mm Length	Each	8250.00
е	7 Metre Length Single Bracket Pole with Base Plate		
	(250 x 250 x 6mm)		
	114.30mm OD x 5.40mm Thick x 4000mm Length,		
	88.90mm OD x 4.85mm Thick x 1500mm Length,		
	76.1mm OD x 3.25mm Thick x 1500mm Length	Each	9480.00
f	7 Metre Length Double Bracket Pole with Base Plate		
	(250 x 250 x 6mm)		
	114.30mm OD x 5.40mm Thick x 4000mm Length,		
	88.90mm OD x 4.85mm Thick x 1500mm Length,		
	76.10mm OD x 3.25mm Thick x 1500mm Length	Each	10430.00
g	7.50 Metre Length Single Bracket Pole with Base Plate		
	(250 x 250 x 6mm)		
	114.30mm OD x 5.40mm Thick x 4500mm Length,		
	88.90mm OD x 4.85mm Thick x 1500mm Length,		
	76.1mm OD x 3.25mm Thick x 1500mm Length	Each	10590.00
h	7.50 Metre Length Double Bracket Pole with Base Plate		
	(250 x 250 x 6mm)		
	114.30mm OD x 5.40mm Thick x 4500mm Length,		
	88.90mm OD x 4.85mm Thick x 1500mm Length,		
	76.10mm OD x 3.25mm Thick x 1500mm Length	Each	11700.00
i	8 Metre Length Single Bracket Pole with Base Plate		
	(250 x 250 x 6mm)		
	114.30mm OD x 5.40mm Thick x 4500mm Length,		
	88.90mm OD x 4.85mm Thick x 1750mm Length,		
	76.10mm OD x 3.25mm Thick x 1750mm Length	Each	10900.00
j	8 Metre Length Double Bracket Pole with Base Plate		
	(250 x 250 x 6mm)		
	114.30mm OD x 5.40mm Thick x 4500mm Length,		
	88.90mm OD x 4.85mm Thick x 1750mm Length,		
<u> </u>	76.10mm OD x 3.25mm Thick x 1750mm Length	Each	12010.00
k	8.50 Metre Length Single Bracket Pole with Base Plate		
	(250 x 250 x 6mm)		
	114.30mm OD x 5.40mm Thick x 5000mm Length,		

Item No.	Description	Unit	Rates for 2018-19 in Rupees
	88.90mm OD x 4.85mm Thick x 1750mm Length,		
	76.10mm OD x 3.25mm Thick x 1750mm Length	Each	11620.00
I	8.50 Metre Length Double Bracket Pole with Base Plate		
	(250 x 250 x 6mm)		
	114.30mm OD x 5.40mm Thick x 5000mm Length,		
	88.90mm OD x 4.85mm Thick x 1750mm Length,		
	76.10mm OD x 3.25mm Thick x 1750mm Length	Each	13040.00
m	9 Metre Length Single Bracket Pole with Base Plate		
	(300 x 300 x 6mm)		
	114.30mm OD x 5.40mm Thick x 5000mm Length,		
	88.90mm OD x 4.85mm Thick x 2000mm Length,		
	76.10mm OD x 3.25mm Thick x 2000mm Length	Each	11620.00
n	9 Metre Length Double Bracket Pole with Base Plate		
	(300 x 300 x 6mm)		
	114.30mm OD x 5.40mm Thick x 5000mm Length,		
	88.90mm OD x 4.85mm Thick x 2000mm Length,		
	76.10mm OD x 3.25mm Thick x 2000mm Length	Each	13040.00
0	10 Metre Length Single Bracket Pole with Base Plate		
	(300 x 300 x 6mm)		
	139.70mm OD x 4.50mm Thick x 5200mm Length,		
	114.30mm OD x 4.50mm Thick x 2400mm Length,		
	88.90mm OD x 3.25mm Thick x 2400mm Length	Each	15390.00
р	10 Metre Length Double Bracket Pole with Base Plate		
	(300 x 300 x 6mm)		
	139.70mm OD x 4.50mm Thick x 5200mm Length,		
	114.30mm OD x 4.50mm Thick x 2400mm Length,		
	88.90mm OD x 3.25mm Thick x 2400mm Length	Each	15810.00
q	12 Metre Length Single Bracket Pole with Base Plate		
	(300 x 300 x 6mm)		
	165.10mm OD x 4.50mm Thick x 5800mm Length,		
	139.70mm OD x 4.50mm Thick x 3100mm Length,		
	114.30mm OD x 3.65mm Thick x 3100mm Length	Each	18140.00
r	10 Metre Length Double Bracket Pole with Base Plate		
	(300 x 300 x 6mm)		
	165.10mm OD x 4.50mm Thick x 5800mm Length,		
	139.70mm OD x 4.50mm Thick x 3100mm Length,		
	114.30mm OD x 3.65mm Thick x 3100mm Length	Each	20100.00

Item No.	Description	Unit	Rates for 2018-19 in Rupees
2	LIGHTNING ROD		Jef Flash /
			Nimbus /
			Equivalent
a	Supply of Early Streamer Emission Air Terminal (ESEAT).  Model: L  The ESEAT has corrosion resistant stainless chrome body made up of AISI 316 grade of height 0.50 metres	Each	70500.00
	capable of working in hazardous atmosphere. The Air terminal is non-radioactive and requires no special licensing. The unit is fully autonomous (no battery, no external power supply is required), collects energy from the ambient electric field. The ESEAT model has been tested in a high voltage laboratory in accordance with NFC 17 102 in order to measure the average gain in triggering. The average gain in triggering time ("Ts) obtained during the lab test for the offered model is 60 µs. The ESEAT works on negative as well as positively polarized discharges. ESEAT has been tested for such discharges in Central Power Research Institute (CPRI). A dedicated tester is avilable to test the healthiness of the ESEAT on request (Page No. 37, Point No. 3 of Clause 8.6 of the Revised NFC 17-102 version 2011). ESEAT Model: L - Radius of protection: 86 Metres Level of protection considered for the Project-II level		
b	Supply of Early Streamer Emission Air Terminal (ESEAT). Model: S Each 62700.00  The ESEAT has corrosion resistant stainless chrome body made up of AISI 316 grade of height 0.50 metres capable of working in hazardous atmosphere. The Air terminal is non-radioactive and requires no special licensing. The unit is fully autonomous (no battery, no external power supply is required), collects energy from the ambient electric field. The ESEAT model has been tested in a high voltage laboratory in accordance with NFC 17 102 in order to measure the average gain in triggering. The average gain in triggering time ("Ts) obtained during the lab test for the offered model is 60 µs.  The ESEAT works on negative as well as positively polarized discharges. ESEAT has been tested for such discharges in Central Power Research Institute (CPRI). A dedicated tester is avilable to test the healthiness of the ESEAT on request (Page No. 37, Point No. 3 of Clause 8.6 of the Revised NFC 17-102 version 2011).		

Item No.	Description	Unit	Rates for 2018-19 in Rupees
	ESEAT Model: S - Radius of protection: 46 Metres		
	Level of protection considered for the Project-II level		
С	MOUNTING STRUCTURE		
	Supply of Standard / Special Mounting Structure of height	Each	18800.00
	4.5 mts. pipe, and 300 x 300 x 8mm MS plate, 3 mts.		
	48mm OD class C GI outer pipe,1.8 mtr, 38mm OD inner		
	pipe, for roof mounting on concrete base and with FRP		
	adapter		
d	DOWN CONDUCTOR		
	Supply and run of 25mm x 6mm GI Flat Down Condutor		
	with necessary clamps / supports on wall / floor /		
	ground for earth connection	Mtr	109.00
е	TEST LINK		
	Supply of Test Link Box for each Down conductor in		
	order to disconnect the earth termination system to		
	enable measurement of resistance	Each	4625.00
f	EARTH ELECTRODE		
	Supply and insallation maintenance free GI Earthing		
	System comprising of 50mm dia and 2 mtr. long earth		
	electrode of low carbon steel rod with 100 micron		
	bonding and 25 kgs. of carbon based environment		
	friendly backfill compound and suitable clamp	Each	8540.00
g	SURDGE PROTECTION		
	Supply and insallation Cabinet Type Class 1 and 2		
	Combined Model SPD to arrest surges and overvoltages		
	in the power line due to lighning switching action etc.		
	they must be installed in the incoming MCC panel / DB		
	of the respective buling in parallel to the power circuit.	Each	17950.00
	Model: PSV4-12.5/400TT (3 phase power network)		
	New I tems		
XVI	PART "P"		
	Conference type Public Address System, Projector		
	and Motorized Screen		BOSCH
1	Chairman Unit	Each	14410.00
2	Delegate Unit	Each	12776.00
3	Conference Controller	Set	31955.00
4	PA Mixer Amplifier 120W	Set	19241.00
5	PA Mixer Amplifier 240W	Set	24688.00
6	PA Booster Amplifier 480W	Set	42634.00
7	Wall Speaker 15W	Each	8286.00

I tem No.	Description	Unit	Rates for 2018-19 in Rupees	
8	Wall Speaker 30W		Each	12045.00
9	Ceiling Speaker 15W		Each	2098.00
10	Ceiling Speaker 20W		Each	3241.00
11	Cordless Mic UHF (AKG)		Each	19285.00
12	8 Pin Conference Mic socket with N	1odular Box and		
	Front Plate (Orbit	/ Equivalent)	Each	316.00
13	2 Core 1.5 sq.mm Shielded Copper			
	Speaker Wire (Orbit ,	/ Equivalent)	RM	39.10
14	8 Core 1.5 sq.mm PVC			
	Copper Conference Cable (Orbit /	Equivalent)	RM	150.00
15	3200 Ansi Lumens Projector, XGA (	1024 x 768)		
	Resolution, Contrast Ratio: 4000:1	L (Sony)	Each	37411.00
16	3600 Ansi Lumens Projector, XGA (	1024 x 768)		
	Resolution, Contrast Ratio: 20000	:1 (Sony)	Each	53214.00
17	3300 Ansi Lumens Short Throw Pro	jector, WXGA		
	(1280 x 800) Resolution, Contrast Ra	tio: 3000: 1 (Sony)	Each	93750.00
18	6' x 4' Motorized Screen	(LIBERTY)	Each	11550.00
19	8' x 6' Motorized Screen	(LIBERTY)	Each	15500.00
20	10' x 8' Motorized Screen	(LIBERTY)	Each	18600.00
21	3 Feet Ceiling Mount Kit	(LIBERTY)	Each	4100.00
22	20 Metre HDMI Cable	(LIBERTY)	Set	4062.00
23	3 Core 1.5 sq.mm PVC Power			
	cable for Projector	Orbit/Equivalent	RM	55.40

#### XVII VERTICAL THREE PHASE DISTRIBUTION BOARD WITH MCBS

4 Way / 8 way / 12 Way Vertical TPMCB sheet steel distribution boards Flush type/ Surface type fitted with Bus bars and Neutral links with single / three phase MCB out goings and separate 4 way provision for accommodating one No.4 pole incoming MCB / Isolator and another separate 4 way provision for accommodating one No. 4 pole ELCB/ RCD with label holder and provisions for taking up cable for size not less than 35 sq.mm

#### 1. TPMCB DB WITH METAL DOOR COVER WITH IP 42 PROTECTION

Description	No. of ways Havell's / incomer MCB/ Isolator	No.of ways incomer ELCB/RCD	No.of outgoing ways	Legrand (MDS) / HAGER ( L & T)	All other makes with ISI (Std /HPL / equivalent) (Rate in Rupees)
4 Ways 3 Phase DB	4	4	12	5160.00	4240.00
8 Ways 3 Phase DB	4	4	24	6540.00	5220.00
12 Ways 3 Phase DB	4	4	36	8720.00	6420.00

#### 2.TPMCB DB WITH ACRYLIC DOOR COVER WITH IP 42 PROTECTION

Description	No. of ways incomer MCB/ Isolator	No.of ways incomer ELCB/RCD	No.of outgoing ways	Legrand (MDS) / HAGER ( L & T) Rate in Rs.
4 Ways 3 Phase DB	4	4	12	6230.00
8 Ways 3 Phase DB	4	4	24	7930.00
12 Ways 3 Phase DB	4	4	36	10550.00

#### 3 New Item

6 Way Vertical TPN Distributions boards; IP43 with double door (Metal); with 12 module incomers and 18 Single Phase/ Three Phase/ MCB's outgoing; as per IS 8623 III	Each	9563.00
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#### 4.INDUSTRIAL TYPE TPMCB DB WITH IP 54 PROTECTION

Description	No. of ways	No.of ways	No.of	Legrand (MDS) /
	incomer	incomer	outgoing	HAGER
	MCB/	ELCB/RCD	ways	( L & T) Rate in Rs.
	Isolator			
4 Ways 3 Phase DB	4	4	12	9640.00
8 Ways 3 Phase DB	4	4	24	11640.00
12 Ways 3 Phase DB	4	4	36	15600.00

#### XVIII HORIZONTAL THREE PHASE DISTRIBUTION BOARD WITH MCBS

 $4~\rm way$  /  $6~\rm way$  /  $8~\rm way$  /  $12~\rm way$  TPMCB sheet steel distribution boards Flush type / Surface type fitted with Bus bars and Neutral links with single/ three phase MCB outgoings and separate  $4~\rm way$  provision for accommodating one No.  $4~\rm pole$  incoming MCB / Isolator and another separate  $4~\rm way$  provision for accommodating one No.  $4~\rm pole$  ELCB / RCD with label holder and provisions for taking up cable for size not less than  $35~\rm sg.mm$ 

## 1. TPMCB DB WITH METAL DOOR COVER WITH IP 42 PROTECTION

Description	No. of ways Havell's / incomer MCB/ Isolator	No.of ways incomer ELCB/RCD	No.of outgoing ways	Legrand (MDS) / HAGER ( L & T)	All other makes with ISI (Std /HPL/ equivalent) (Rate in Rupees)
4 Ways 3 Phase DB	4	4	12	2160.00	1710.00
6 Ways 3 Phase DB	4	4	18	2660.00	2160.00
8 Ways 3 Phase DB	4	4	24	3190.00	2650.00
12 Ways 3 Phase DB	4	4	36	4710.00	3600.00

## 2.TPMCB DB WITH ACRYLIC DOOR COVER WITH IP 42 PROTECTION

Description	No. of ways incomer MCB/ Isolator	No.of ways incomer ELCB/RCD	No.of outgoing ways	Legrand (MDS) / HAGER ( L & T) Rate in Rs.
4 Ways 3 Phase DB	4	4	12	2510.00
6 Ways 3 Phase DB	4	4	18	3080.00
8 Ways 3 Phase DB	4	4	24	3680.00
12 Ways 3 Phase DB	4	4	36	5610.00

#### 3.INDUSTRIAL TYPE TPMCB DB WITH IP 54 PROTECTION

Description	No. of ways incomer MCB/ Isolator	No.of ways incomer ELCB/RCD	No.of outgoing ways	Legrand (MDS) / HAGER ( L & T) Rate in Rs.
4 Ways 3 Phase DB	4	4	12	6090.00
6 Ways 3 Phase DB	4	4	18	7330.00
8 Ways 3 Phase DB	4	4	24	8020.00
12 Ways 3 Phase DB	4	4	36	11080.00

## XIX 7 SEGMENTS (3 TIER) 3 PHASE DISTRIBUTION BOARD WITH MCB

4 Way/6 way/8 way/12 Way TPMCB sheet steel distribution boards Flush type/Surface type fitted with Bus bars and Neutral links with single /three phase MCB out goings and separate 4 way provision for accommodating one No. 4 pole incoming MCB /Isolator and another separate 4 way provision for accommodating one No. 4 pole ELCB/RCD (Totally 8 ways in one segment)(3 x 4 ways in each segment) and separate provision for MCB /Isolator)(Totally 12 Nos. ) for sub incomers in 3 segments  $\,$  with label holder and provisions for taking up cable for size not less than 35 sq.mm

#### 1. New Item

Vertical TPN Distribution Boards (with MCCB Incomer); Double Door; IP43, as per IS 8623 III; Impact resistance IK09; Frame MCCB Incomer & Single Phase/Three Phase MCBs as Outgoing (for power loads exceeding 100A)	Unit	Hager / Equivalent (Incomer 160A MCCB)	Hager / Equivalent (Incomer 250A MCCB)
4 Way, MCCB + 12 Modules	Each	8638.00	15999.00
6 Way, MCCB + 18 Modules	Each	9985.00	17441.00
8 Way, MCCB + 24 Modules	Each	10877.00	18663.00
12 Way, MCCB + 36 Modules	Each	14485.00	19724.00
16 Way, MCCB + 48 Modules	Each	17116.00	22207.00

#### 2.TPMCB DB WITH METAL / ACRYLIC DOOR COVER WITH IP 42 PROTECTION

Description	No. of ways incomer MCB/Isolator	No. of ways incomer ELCB/RCD	No.of Sub incomers	No. of out going ways	Legrand (MDS) /HAGER(L&T) Rate in Rupees
4 Ways 3 Phase DB	4	4	12	12	5070.00
6 Ways 3 Phase DB	4	4	12	18	5730.00
8 Ways 3 Phase DB	4	4	12	24	6390.00
12 Ways 3 Phase DB	4	4	12	36	8140.00

#### XX SINGLE PHASE DISTRIBUTION BOARD WITH MCBs

4 way/8 way/12 way Vertical SPMCB sheet steel distribution boards Flush type/Surface type fitted with Bus bars and Neutral links with single phase MCB out goings and separate 2 way provision for accommodating one No. 2 pole incoming MCB /Isolator and another separate 2 way provision for accommodating one No, 2 pole ELCB/RCD with label holder and provisions for taking up cable for size not less than 35 sq.mm

#### 1. SPMCB DB WITH METAL DOOR COVER WITH IP 42 PROTECTION

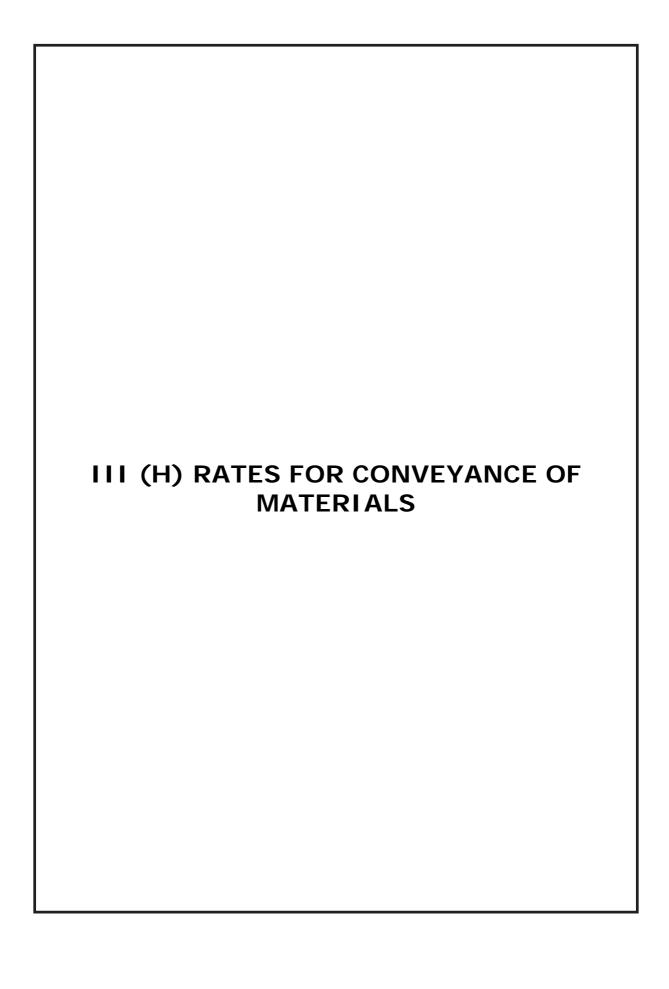
Description	No. of ways Havell's / incomer MCB/ Isolator	No.of ways incomer ELCB/RCD	No.of outgoing ways	Legrand (MDS) / HAGER ( L & T)	All other makes with ISI (Std /HPL / equivalent) (Rate in Rupees)
4 Ways single Phase DB	2	2	4	851.00	556.00
8 Ways single Phase DB	2	2	8	1063.00	760.00
12 Ways single Phase DB	2	2	12	1279.00	978.00

#### 2. SPMCB DB WITH ACRYLIC DOOR COVER WITH IP 42 PROTECTION

Description	No. of ways incomer MCB/ Isolator	No.of ways incomer ELCB/RCD	No.of outgoing ways	Legrand (MDS) / HAGER ( L & T) Rate in Rs.
4 Ways single Phase DB	2	2	4	1002.00
8 Ways single Phase DB	2	2	8	1182.00
12 Ways single Phase DB	2	2	12	1434.00

#### 3. INDUSTRIAL TYPE TPMCB DB WITH IP 54 PROTECTION.

Description	No. of ways incomer MCB/ Isolator	No.of ways incomer ELCB/RCD	No.of outgoing ways	Legrand (MDS) / HAGER ( L & T) Rate in Rs.
4 Ways single Phase DB	2	2	4	2559.00
8 Ways single Phase DB	2	2	8	2999.00
12 Ways single Phase DB	2	2	12	3456.00



**CONVEYANCE** 1) Rates for Conveyance of C.I/G.I/D.I. Pipes and Specials

Size	Unloading from Railway wagons or loading into Railway wagons/ Tonne	Loading into carts or lorries/ Tonne	Unloading from carts or lorries & stacking/ Tonne	Transport charges up to 8km or part thereof/ Tonne	Total/ Tonne
1	2	3	4	5	6
	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.
Up to 125 mm	251.62	165.32	165.32	154.46	736.72
Over 125 mm up to					
200 mm	344.72	221.06	221.06	164.98	951.82
Over 200 mm up to					
350 mm	423.01	292.44	292.44	167.97	1175.86
Over 350 mm up to					
500 mm	529.14	346.34	346.34	188.96	1410.79
Over 500 mm up to					
700 mm	638.83	400.35	400.35	208.39	1647.92
Above 700mm	718.90	476.91	476.91	224.94	1897.67

For every 1 KM or part thereof	Rate per Tonne in Rupees		
	up to 500 mm	Above 500 mm	
Beyond 8 KM to 25 KM	11.94	13.45	
Above 25 KM to 50 KM	8.68	10.20	
Above 50 KM to 80 KM	7.60	9.06	
Above 80 KM to 125 KM	5.70	7.54	
Above 125 KM to 200 KM	5.70	5.70	
Above 200 KM	3.74	3.74	

- Note: 1) For lorry and cart consignments of capacity one Tonne and below, double the rates may be allowed, when the total quantity to be transported is within 1.00
  - 2) For Lorry consignments from 1 to 2 Tonnes, the rates admissible for two Tonnes may be allowed, when the total quantity to be transported is within 2 M.T.
  - 3) For Lorry Consignments from 2 to 5 Tonnes, the rates admissible for 5 Tonnes may be allowed, when the total quantity to be transported is within 5 M.T.
  - 4) Above 5 Tonnes of Lorry consignment, full lorry load rate of 9 Tonnes may be
  - 5) For the conveyance of E.R.W.M.S. seamless pipes and specials up to 350mm dia, the rates of C.I. Pipes of respective dia available in the Schedule of rates may be adopted.
  - 6) An extra rate of Rs. 32.90 per Tonne may be allowed for unloading from Railway wagons and stacking before loading into carts and lorries.

## 2) Rates for Conveyance of M.S. Pipes and Specials

Size	Unloading from Railway wagons or loading into Railway wagons/ Tonne	Loading into carts or lorries/ Tonne	Unloading from carts or lorries & stacking/ Tonne	Transport charges up to 8km or part thereof/ Tonne	Total/ Tonne
1	2	3	4	5	6
	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.
Up to 350 mm	950.43	657.99	657.99	383.95	2650.35
Over 350 mm up to 500 mm	1194.14	779.87	779.87	425.94	3179.83
Over 500 mm up to 700 mm	1441.31	894.69	894.69	470.92	3701.61
Above 700mm	1618.88	1079.27	1079.27	509.87	4287.29

For every 1 KM or part thereof	Rate per Tonne in Rupees		
	up to 500 mm	Above 500 mm	
Beyond 8 KM to 25 KM	26.96	29.95	
Above 25 KM to 50 KM	19.31	23.22	
Above 50 KM to 80 KM	16.66	20.89	
Above 80 KM to 125 KM	13.13	16.71	
Above 125 KM to 200 KM	13.13	13.13	
Above 200 KM	9.28	9.28	

- Note: 1) For lorry and cart consignments of capacity one Tonne and below double the rates may be allowed, when the total quantity to be transported is within 1.00 M.T.
  - 2) For Lorry consignments from 1 to 2 Tonnes the rates admissible for two Tonnes may be allowed, when the total quantity to be transported is within 2 M.T.
  - 3) For Lorry Consignments from 2 to 5 Tonnes the rates admissible for 5 Tonnes may be allowed, when the total quantity to be transported is within 5 M.T.
  - 4) Above 5 Tonnes of Lorry consignment, full lorry load rate of 9 Tonnes may be allowed.
  - 5) An extra rate of Rs. 32.90 per Tonne may be allowed for unloading from Railway wagons and stacking before loading into carts and lorries.

# 3) Rates for Conveyance of R.C.C. /P.S.C/B.W.S.C. Pipes and Specials

Size	Unloading from Railway wagons or loading into Railway wagons/ Tonne	Loading into carts or lorries/ Tonne	Unloading from carts or lorries & stacking/ Tonne	Transport charges up to 8km or part thereof/ Tonne	Total/ Tonne
1	2	3	4	5	6
	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.
150 mm to 200 mm	194.94	149.67	149.67	176.92	671.21
Over 200 mm up to 350 mm	241.88	191.49	191.49	185.93	810.79
Over 350 mm up to 500 mm	302.85	236.70	236.70	193.47	969.73
Over 500 mm up to 700 mm	377.69	278.52	278.52	218.91	1153.64
Above 700mm	410.82	309.81	309.81	236.98	1267.42

For every 1 KM or part thereof	Rate per Tonne in Rupees			
Tor every 1 Kivi or part thereof	up to 500 mm	Above 500 mm		
Beyond 8 KM to 25 KM	10.25	13.73		
Above 25 KM to 50 KM	6.89	10.42		
Above 50 KM to 80 KM	5.75	9.44		
Above 80 KM to 125 KM	5.75	7.54		
Above 125 KM to 200 KM	5.75	5.75		
Above 200 KM	3.80	3.80		

Note: 1) For lorry and cart consignments of capacity 1 Tonne and below, double the rates may be allowed, when the total quantity to be transported is within 1 M.T.

2) For Lorry consignments up to 5 MT (i.e.) above 1 MT Load, the rates admissible for 5 Tonnes may be allowed.

## 4) Rates for Conveyance of A.C. Pipes and Specials

Size	Unloading from Railway wagons or loading into Railway wagons/ Tonne	Loading into carts or lorries/ Tonne	Unloading from carts or lorries & stacking/ Tonne	Transport charges up to 8km or part thereof/ Tonne	Total/ Tonne
1	2	3	4	5	6
	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.
Up to 125 mm	128.79	114.82	114.82	269.91	628.34
Over 125 mm					
up to 200 mm	175.74	121.83	121.83	283.42	702.82
Over 200 mm					
up to 250 mm	200.18	149.67	149.67	322.43	821.95
For 300 mm	215.82	156.63	156.63	331.43	860.52
For 350 mm	215.82	174.06	174.06	335.94	899.88
For 400 mm	224.51	193.21	193.21	358.45	969.39
For 450 mm	248.85	215.82	215.82	379.45	1059.94
For 500 mm	264.60	238.43	238.43	391.38	1132.84
For 600 mm	290.66	273.28	273.28	419.92	1257.15
For 700 mm	302.85	280.25	280.25	421.44	1284.78

For every 1 KM or part thereof	Rate per Tonne in Rupees		
	up to 500 mm	Above 500 mm	
Beyond 8 KM to 25 KM	20.61	24.09	
Above 25 KM to 50 KM	12.15	13.94	
Above 50 KM to 80 KM	11.34	13.24	
Above 80 KM to 125 KM	9.39	11.34	
Above 125 KM to 200 KM	7.54	9.39	
Above 200 KM	5.75	7.54	

Note: 1) For lorry and cart consignments of capacity one Tonne and below double the rates may be allowed, when the total quantity to be transported is within 1 M.T.

- 2) For Lorry consignments from 1 to 2 Tonnes the rates admissible for two Tonnes may be allowed, when the total quantity to be transported is within 2 M.T.
- 3) For Lorry Consignments from 2 to 5 Tonnes the rates admissible for 5 Tonnes may be allowed, when the total quantity to be transported is within 5 M.T.
- 4) Above 5 Tonnes of Lorry consignment, full lorry load rate of 9 Tonnes may be allowed.
- 5) For the conveyance of E.R.W.M.S. seamless pipes and specials up to 350mm dia, the rates of C.I. Pipes of respective dia available in the Schedule of Rates may be adopted.
- 6) An extra rate of Rs. 32.86/Tonne may be allowed for unloading from Railway wagons and stacking before loading into carts and lorries.

## 5) Rates for Conveyance of PVC/ HDPE /GRP Pipes and Specials

Size	Unloading from Railway wagons or loading into Railway wagons/ Tonne	Loading into carts or lorries/ Tonne	Unloading from carts or lorries & stacking/ Tonne	Transport charges up to 8km or part thereof/ Tonne	Total/ Tonne
1	2	3	4	5	6
	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.
50mm to 110mm OD	167.05	146.22	146.22	449.98	909.47
125mm to200mm OD	215.82	147.89	147.89	452.91	964.52
Over 200mm to					
315mm OD	219.33	194.94	194.94	487.41	1096.63
Over 315mm OD	222.78	200.12	200.12	529.41	1152.43

For every 1 KM or part thereof	Rate per Tonne in Rupees
Beyond 8 KM to 25 KM	38.85
Above 25 KM to 50 KM	25.93
Above 50 KM to 80 KM	22.73
Above 80 KM to 125 KM	16.98
Above 125 KM to 200 KM	13.18
Above 200 KM	9.39

**Note:** 1) For departmentally loading of PVC pipes and Rs. 3.10 each length (6m) Specials (excluding transport charges) Up to 110 mm dia

- 2) For departmentally unloading of PVC pipes and Rs. 3.10 each length (6m) Specials Up to 110 mm dia
- a. For departmentally loading for Rs. 175.20 per 1 MT remaining sizes of pipesb. For departmentally unloading for Rs. 170.20 per 1 MT remaining sizes of pipes
- 4) An extra rate of Rs. 34.65/ Tonne may be allowed for unloading from Railway wagons and stacking before loading into carts and lorries.
- 5) For lorry and cart consignments of capacity one Tonne and below double the rates may be allowed, when the total quantity to be transported is within 1 M.T.
- 6) For Lorry consignments from 1 to 2 Tonnes the rates admissible for two Tonnes may be allowed, when the total quantity to be transported is within 2 M.T.
- 7) For Lorry Consignments from 2 to 5 Tonnes the rates admissible for 5 Tonnes may be allowed, when the total quantity to be transported is within 5 M.T.

## 6) Rates for Conveyance of SW Pipes and Specials

Size	Unloading from Railway wagons or loading into Railway wagons/ Tonne	Loading into carts or lorries/ Tonne	Unloading from carts or lorries & stacking/ Tonne	Transport charges up to 8km or part thereof/ Tonne	Total/ Tonne
1	2	3	4	5	6
	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.
100 to 200 mm	241.89	158.36	158.36	245.93	804.54
Over 200 to 350 mm	306.36	203.63	203.63	265.41	979.03
Over 350 mm to					
500 mm	384.65	245.39	245.39	287.92	1163.36

For every 1 KM or part thereof	Rate per Tonne in Rupees
Beyond 8 KM to 25 KM	17.15
Above 25 KM to 50 KM	10.42
Above 50 KM to 80 KM	11.39
Above 80 KM to 125 KM	7.54
Above 125 KM to 200 KM	5.75
Above 200 KM	3.80

**Note:** 1) For lorry and cart consignments of capacity one Tonne and below double the rates may be allowed, when the total quantity to be transported is within 1 M.T.

2) An extra rate of Rs.34.65 / Tonne may be allowed for unloading from Railway wagons and stacking before loading into carts and lorries.

# 7) Rates for Conveyance of Pig lead and Yarn

Size	Unloading from Railway wagons or loading into Railway wagons/ Tonne	Loading into carts or lorries/ Tonne	Unloading from carts or lorries & stacking/ Tonne	Transport charges up to 8km or part thereof/ Tonne	Total/ Tonne
1	2	3	4	5	6
	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.
Pig lead / Yarn	83.47	71.33	71.33	89.95	316.08

For every 1 KM or part thereof	Rate per Tonne in Rupees
Beyond 8 KM to 25 KM	10.26
Above 25 KM to 50 KM	8.68
Above 50 KM to 80 KM	7.60
Above 80 KM to 125 KM	5.75
Above 125 KM to 200 KM	5.75
Above 200 KM	3.80

**Note:** The above rates are basic rates only and GST extra applicable as per GO.

8 a) Rates for Conveyance of Materials by Road in Hills

		Rate for 2018-19 in Rupees					
SI.No.	Distance in Kilometre	Cement and Steel (One metric tonne)	Limestone, Laterite, Brickjelly, Wood work, Pond Ash (wet /dry) , stone dust (One Cubic Metre)	Rough Stone, Bond Stone, Cut Stone, Broken Stone jelly, Sand, Gravel, Surki, Earth, Crushed stone sand (One Cubic Metre)	Third Class Country Bricks (Kiln Burnt) (1000 nos.)	Mangalore Tiles (1000 Nos.) Machine Pressed Tiles (2000 Nos.) Hydraulically pressed Mosaic Flooring Tiles (1500 Nos.)	Bricks II class Chamber burnt Bricks (Table Moulded/Ground Moulded), Fly Ash Bricks (1000 Nos.)
1	2	3	4	5	6	7	8
1	Co-efficient	1.00	1.10	1.60	1.35	1.80	2.25
2	Add for every extra	l Km ar	nd part th	ereof			
а	0 to 10 kms	12.04	13.20	19.24	16.24	21.64	27.04
b	10 to 20 kms	10.30	11.32	16.46	13.90	18.54	23.16
С	20 to 40 kms	8.86	9.74	14.18	11.94	15.94	19.92
d	40 to 80 kms	7.64	8.42	13.30	10.30	13.72	17.20
е	Above 80 kms	6.98	7.68	11.16	9.42	12.54	15.68

- Note: 1 The above rates do not include stacking charges [as per Circular Memo No.230 Wks.IV(2)/62-3 dated 10.06.1962 of Chief Engineer (General)]
  - 2 For Conveyance of Materials on cart track, allow 20% extra over the above rates excluding loading and unloading charges.
  - For Sandy and Slushy soil tracks, add 50% extra over the above rates excluding loading and unloading charges.
  - The quantity for Payment towards conveyance of earth in coloumn (5) is for the pit measured quantity at the site of excavation only.
  - For conveyance of laterite, broken stone jelly, etc., through lorries, the rates provided are for the volume with voids.
  - For all materails which finds place in column 3,4,5,6,7 & 8 above, necessary incidental charges, loading charges and unloading charges have been included already under their basic cost furnished below the head "Rates of Materials" itself. Hence, no separate incidental charges, loading and unloading charges shall be allowed for the above materials.
  - 7 The above rates are basic rates only and GST extra applicable as per GO

8 b) Rates for Conveyance of Materials by Road in plains

		Rate for 2018-19 in Rupees					
SI.No.	Distance in Kilometre	Cement and Steel (One metric tonne)	Limestone, Laterite, Brickjelly, Wood work, Pond Ash (wet /dry) , stone dust (One Cubic Metre)	Rough Stone, Bond Stone, Cut Stone, Broken Stone jelly, Sand, Gravel, Surki, Earth, Crushed stone sand (One Cubic Metre)	Third Class Country Bricks (Kiln Burnt) (1000 nos.)	Mangalore Tiles (1000 Nos.) Machine Pressed Tiles (2000 Nos.) Hydraulically pressed Mosaic Flooring Tiles (1500 Nos.)	Bricks II class Chamber burnt Bricks (Table Moulded/Ground Moulded), Fly Ash Bricks (1000 Nos.)
1	2	3	4	5	6	7	8
1	Co efficient	1.00	1.10	1.60	1.35	1.80	2.25
2	Add for every extra 1	Km and	d part the	ere of			
а	0 to 10 kms	6.02	6.60	9.62	8.12	10.82	13.52
b	10 to 20 kms	5.15	5.66	8.23	6.95	9.27	11.58
С	20 to 40 kms	4.43	4.87	7.09	5.97	7.97	9.96
d	40 to 80 kms	3.82	4.21	6.65	5.15	6.86	8.60
е	Above 80kms	3.49	3.84	5.58	4.71	6.27	7.84
3	Loading Charges	92.00	43.90	30.10	43.20	43.20	43.20
4	Unloading Charges	92.00	43.90	30.10	43.20	43.20	43.20
5	Add above extra for						
	inter state works	19.30	21.20	30.90	26.00	34.70	43.50

Note: 1 The above rates do not include stacking charges [as per Circular Memo No.230 Wks.IV(2)/62-3 dated 10.06.1962 of Chief Engineer (General)]

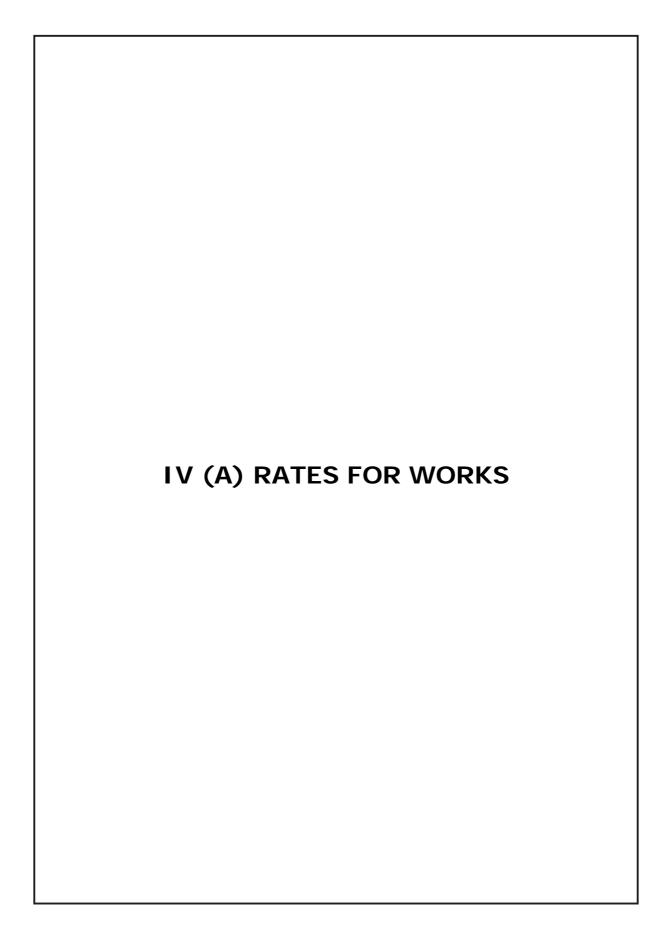
- 2 For Conveyance of Materials on cart track, allow 20% extra over the above rates excluding loading and unloading charges.
- For Sandy and Slushy soil tracks, add 50% extra over the above rates excluding loading and unloading charges.
- The quantity for Payment towards conveyance of earth in coloumn (5) is for the pit measured quantity at the site of excavation only.
- For conveyance of laterite, broken stone jelly, etc., through lorries, the rates provided are for the volume with voids.
- For all materails which finds place in column 3,4,5,6,7 & 8 above, necessary incidental charges, loading charges and unloading charges have been included already under their basic cost furnished below the head "Rates of Materials" itself. Hence, no separate incidental charges, loading and unloading charges shall be allowed for the above materials.
- 7 The above rates are basic rates only and GST extra applicable as per GO

# 9) Rates for Conveyance of materials by Head load

			Rate for 2	2018-19 in	Rupees
			LE/	LEAD	
SI.No	Description of material	Unit	Above 10m and upto 100m	Add extra for every additional 100m or part thereof	Add extra for every 1m height or part thereof for more than 2m lift
1	2	3	4	5	6
1	Rough Stone, Broken Stone Jelly, Cut Stone, RCC Slab, Sand - Cement Block, Wooden Scantling, Wooden plank	cu.m	76.60	31.80	8.30
2	Lime, Lime Stone, Laterite, Brick Jelly, Earth, Sand, Gravel, Surki, Pond Ash (wet/dry), Crushed Stone Sand, Stone Dust	cu.m	40.70	31.80	6.25
3	a) Mangalore Tiles	1000 Nos.	83.00	41.70	10.50
	b) Machine Pressed Tiles	2000 Nos.	83.00	41.70	10.50
	c) Hydraulic Pressed Mosaic Flooring Tiles	1500 Nos.	83.00	41.70	10.50
	d) Terrace Bricks, Flat Tiles and Pan Tiles	2500 Nos.	83.00	41.70	10.50
	e) Bricks	1000 Nos.	83.00	41.70	10.50
4	Cement, A.C. Sheet, Bitumen, Asphalt, Tar	M.T	75.60	41.70	8.30
5	Steel	M.T	127.00	51.10	10.50

Note:

- 1 Fraction of 100 metres to be rounded off to the nearest 100 metres
- The rates indicated in the table shall be applicable only to inaccessible places (i.e) the places Wherever the Bullock Carts cannot move [Chief Engineer (General) Memo No.CTO(A) / 38153 / 89 / dated 03.02.1989]
- 3 For an initial lead of 10m and initial lift of 2m, no charge towards head load is allowable.
- 4 The above rates are basic rates only and GST extra applicable as per GO



## **INFILTRATION WORKS**

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
1	Earthwork excavation above water level in light or sandy or clayey soils for manhole wells, infiltration wells, suction wells etc. including levelling the site with an initial lead of 10 metres		
	First depth of 2 metres	One Cubic metre	58.34
	Second depth of 2 metres	One Cubic metre	92.66
	Third depth of 2 metres	One Cubic metre	133.85
	Fourth depth of 2 metres	One Cubic metre	186.47
2	Erection of Ring well below water level including all incidental charges using special tools and plants such as air compressor helmet etc. complete and including bailing out water.		
a.	For 0.90 metre dia Ring well (internal)		
	First depth of 2 metres	One metre	473.62
	Second depth of 2 metres	One metre	872.87
	Third depth of 2 metres	One metre	1834.98
	Fourth depth of 2 metres	One metre	3664.23
	Fifth depth of 2 metres	One metre	7215.21
	Sixth depth of 2 metres	One metre	14441.86
b.	For 1.2 metre dia Ring well (internal)		
	First depth of 2 metres	One metre	526.24
	Second depth of 2 metres	One metre	1052.48
	Third depth of 2 metres	One metre	2098.10
	Fourth depth of 2 metres	One metre	3930.78
	Fifth depth of 2 metres	One metre	7295.29
	Sixth depth of 2 metres	One metre	14574.56
С.	For 1.50 metre dia Ring well (internal)		
	First depth of 2 metres	One metre	608.61
	Second depth of 2 metres	One metre	1208.06
	Third depth of 2 metres	One metre	2390.96
	Fourth depth of 2 metres	One metre	4762.47
	Fifth depth of 2 metres	One metre	9511.22
	Sixth depth of 2 metres	One metre	18941.21

			Rate for 2018-19 in Rupees		
Schedule I tem No.	Description	Unit	Ordinary soil (or) loose soil sandy soil	Silt (or) clay pocket	
3	Sinking well below water level including all incidental charges using special tools and plants such as air compressor, helmet etc., complete and including baling out water				
a.	For 1.0 metre dia (internal)				
	First depth of 2 metres	One metre	692.12	998.71	
	Second depth of 2 metres	One metre	1164.59	1829.26	
	Third depth of 2 metres	One metre	2328.04	3655.08	
	Fourth depth of 2 metres	One metre	4595.45	7298.72	
	Fifth depth of 2 metres	One metre	8748.17	13706.26	
	Sixth depth of 2 metres	One metre	16425.55	25653.06	
	Seventh depth of 2 metres	One metre	24100.65	34871.41	
	Eighth depth of 2 metres	One metre	31779.18	44088.62	
	Nineth depth of 2 metres	One metre	39450.84	53302.39	
	Tenth depth of 2 metres	One metre	47128.22	62520.74	
b.	For 1.25 metre dia (internal)				
	First depth of 2 metres	One metre	902.62	1369.37	
	Second depth of 2 metres	One metre	1809.81	2743.31	
	Third depth of 2 metres	One metre	3611.61	5547.26	
	Fourth depth of 2 metres	One metre	6475.04	9971.10	
	Fifth depth of 2 metres	One metre	11445.72	17689.67	
	Sixth depth of 2 metres	One metre	20667.50	32023.99	
	Seventh depth of 2 metres	One metre	29882.42	46365.18	
	Eighth depth of 2 metres	One metre	39101.92	60700.64	
	Nineth depth of 2 metres	One metre	48325.99	75040.68	
	Tenth depth of 2 metres	One metre	57542.06	89379.58	
C.	For 2.0 metre dia (internal)				
	First depth of 2 metres	One metre	1404.83	2258.26	
	Second depth of 2 metres	One metre	2800.51	4517.66	
	Third depth of 2 metres	One metre	5589.58	9019.30	

	Description		Rate for 2018	-19 in Rupees
Schedule I tem No.			Ordinary soil (or) loose soil sandy soil	Silt (or) clay pocket
	Fourth depth of 2 metres	One metre	8935.78	16530.80
	Fifth depth of 2 metres	One metre	17466.59	30060.89
	Sixth depth of 2 metres	One metre	34925.18	56156.67
	Seventh depth of 2 metres	One metre	52380.33	82277.62
	Eighth depth of 2 metres	One metre	69837.77	108387.14
	Nineth depth of 2 metres	One metre	87297.50	134494.36
	Tenth depth of 2 metres	One metre	104752.65	160601.58
d.	For 2.5 metre dia (internal)			
	First depth of 2 metres	One metre	1770.91	2946.94
	Second depth of 2 metres	One metre	3683.68	5794.36
	Third depth of 2 metres	One metre	7363.93	11541.82
	Fourth depth of 2 metres	One metre	13714.27	21448.86
	Fifth depth of 2 metres	One metre	25534.08	39665.91
	Sixth depth of 2 metres	One metre	49310.98	74279.92
	Seventh depth of 2 metres	One metre	73083.30	108889.35
	Eighth depth of 2 metres	One metre	96859.05	143501.07
	Nineth depth of 2 metres	One metre	120631.37	178110.50
	Tenth depth of 2 metres	One metre	144410.55	212721.08
e.	For 3.00 metre dia (internal)			
	First depth of 2 metres	One metre	2288.00	3986.84
	Second depth of 2 metres	One metre	4537.10	7752.89
	Third depth of 2 metres	One metre	9063.91	15511.50
	Fourth depth of 2 metres	One metre	17494.05	29131.96
	Fifth depth of 2 metres	One metre	32695.52	54400.63
	Sixth depth of 2 metres	One metre	61971.62	94851.33
	Seventh depth of 2 metres	One metre	91246.58	135248.26
	Eighth depth of 2 metres	One metre	120520.40	175674.93
	Nineth depth of 2 metres	One metre	149793.07	216105.03
	Tenth depth of 2 metres	One metre	179070.32	256535.14
f.	For 3.50 metre dia (internal)			

			Rate for 2018-19 in Rupees		
Schedule I tem No.	Description	Unit	Ordinary soil (or) loose soil sandy soil	Silt (or) clay pocket	
	First depth of 2 metres	One metre	2911.48	4672.10	
	Second depth of 2 metres	One metre	5662.80	9168.02	
	Third depth of 2 metres	One metre	11300.43	18294.85	
	Fourth depth of 2 metres	One metre	21159.42	34291.40	
	Fifth depth of 2 metres	One metre	39530.92	65199.99	
	Sixth depth of 2 metres	One metre	74899.97	121030.62	
	Seventh depth of 2 metres	One metre	110265.58	176863.54	
	Eighth depth of 2 metres	One metre	145638.06	232690.74	
	Nineth depth of 2 metres	One metre	181004.82	288521.38	
	Tenth depth of 2 metres	One metre	216375.02	344354.30	
g.	For 4.00 metre dia (internal)				
	First depth of 2 metres	One metre	3329.04	5604.46	
	Second depth of 2 metres	One metre	6409.83	10729.58	
	Third depth of 2 metres	One metre	12773.90	21439.70	
	Fourth depth of 2 metres	One metre	23990.82	40170.42	
	Fifth depth of 2 metres	One metre	44869.97	74912.55	
	Sixth depth of 2 metres	One metre	85071.27	141796.51	
	Seventh depth of 2 metres	One metre	125271.43	208677.04	
	Eighth depth of 2 metres	One metre	165470.45	275565.58	
	Nineth depth of 2 metres	One metre	205698.06	341988.50	
	Tenth depth of 2 metres	One metre	245875.34	404163.76	
h.	For 4.50 metre dia (internal)				
	First depth of 2 metres	One metre	3974.26	6702.70	
	Second depth of 2 metres	One metre	7794.07	13332.18	
	Third depth of 2 metres	One metre	15646.49	26608.30	
	Fourth depth of 2 metres	One metre	27212.33	49898.99	
	Fifth depth of 2 metres	One metre	47169.41	93308.07	
	Sixth depth of 2 metres	One metre	87728.78	155477.61	
	Seventh depth of 2 metres	One metre	128425.44	217647.14	
	Eighth depth of 2 metres	One metre	169059.18	279817.82	

			Rate for 2018-19 in Rupees		
Schedule I tem No.	Description	Unit	Ordinary soil (or) loose soil sandy soil	Silt (or) clay pocket	
	Nineth depth of 2 metres	One metre	209684.90	342450.68	
	Tenth depth of 2 metres	One metre	250314.06	409334.64	
i.	For 5.00 metre dia (internal)				
	First depth of 2 metres	One metre	4929.50	8314.59	
	Second depth of 2 metres	One metre	9619.90	15430.27	
	Third depth of 2 metres	One metre	19136.83	30811.35	
	Fourth depth of 2 metres	One metre	35909.02	60337.99	
	Fifth depth of 2 metres	One metre	64839.63	112753.78	
	Sixth depth of 2 metres	One metre	126792.95	213643.14	
	Seventh depth of 2 metres	One metre	188743.98	314533.65	
	Eighth depth of 2 metres	One metre	250693.87	415424.15	
	Nineth depth of 2 metres	One metre	312649.48	516315.80	
	Tenth depth of 2 metres	One metre	374603.94	617207.45	
j.	For 6.00 metre dia (internal)				
	First depth of 2 metres	One metre	7085.94	11587.58	
	Second depth of 2 metres	One metre	13736.01	22409.82	
	Third depth of 2 metres	One metre	26093.50	44796.75	
	Fourth depth of 2 metres	One metre	51422.80	83936.42	
	Fifth depth of 2 metres	One metre	96116.59	156565.55	
	Sixth depth of 2 metres	One metre	182195.73	296234.22	
	Seventh depth of 2 metres	One metre	268287.45	435900.61	
	Eighth depth of 2 metres	One metre	354368.87	575568.14	
	Nineth depth of 2 metres	One metre	440454.87	715232.23	
	Tenth depth of 2 metres	One metre	526536.30	854899.76	
NOTE:	the bed level, an extra percentage as under may be allowed over existing rates for items 3(a) to 3 (j) for the extra lift involved.				
	Where water table is 2.00m, below bed level and upto 4.00 m 15% extra				
	Where water table is beyond 4. and upto 6.00m	00m	20% extra		

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
4a.	Earthwork excavation above water level		
	in light or sandy soil for infiltration gallery,		
	syphon or connecting pipeline and		
	connected works including refilling		
	complete.		
	First depth of 2 m	One cubic metre	67.50
	Second depth of 2 m	One cubic metre	96.10
	Third depth of 2 m	One cubic metre	140.71
	Fourth depth of 2 m	One cubic metre	188.76
b.	Earthwork excavation below water level in		
	light or sandy soil for infiltration gallery,		
	syphon or connecting pipe line and		
	connected works including shoring and		
	strutting and charges for special tools and		
	plants for bailing/ pumping etc., such as		
	air compressor and helmet.		
	First depth of 2 m	One cubic metre	1261.83
	Second depth of 2 m	One cubic metre	1783.50
	Third depth of 2 m	One cubic metre	2675.82
	Fourth depth of 2 m	One cubic metre	3882.74
С	Earthwork excavation below water level in		
	clayey soil for infiltration gallery for laying		
	syphon pipe line or connecting pipe and		
	connected works, shoring and strutting and		
	charges for special tools and plants for		
	bailing/pumping etc., such as air		
	compressor and helmet.		
	First depth of 2 m	One cubic metre	2098.10
	Second depth of 2 m	One cubic metre	2916.06
	Third depth of 2 m	One cubic metre	4555.41
	Fourth depth of 2 m	One cubic metre	6817.10
d	Earthwork excavation below water level in		
	soft disintegrated rock for infiltration		
	gallery, laying syphone pipe line/ connecting		
	pipes etc., including shoring, strutting and		
	charges for special tools and plants.		
	First depth of 2 m	One cubic metre	1466.61
	Second depth of 2 m	One cubic metre	1955.10
	Third depth of 2 m	One cubic metre	3045.33
	Fourth depth of 2 m	One cubic metre	5264.69

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
NOTE (i)	For sinking wells in soil mixed with pebbles boulder of size 80 mm to 600 mm mixed with clay and silt below water level, including bailing/ pumping water and charges for special tools and plants etc., complete, an extra 20% (Twenty percentage) over the rates for items 2,3b,3c & 3d in the schedule of rates is allowed.		
ii	In case the water table is met with at a depth of 2.00m and below from the bed level, an extra percentage as under may be allowed over the existing rates for items 4(b), 4(c) and 4(d) above the extra lift involved		
	Where water table is 2.00m below bed	10% extra	
	level and upto 4.00m.  Where water table is beyond 4.00m and	10% extra	
	upto 6.00m	15% extra	
	Pipe laying works	1070 0711 0	
5a	Laying stoneware pipes and open joint with fillet in the infliltration gallery excluding cost of pipes but including charges of special tools and plant etc., such as air compressor and helmet.		
ı	200 mm dia stoneware pipes	One metre	201.34
ii	225 mm dia stoneware pipes	One metre	247.10
iii	300 mm dia stoneware pipes	One metre	289.43
iv	350 mm dia stoneware pipes	One metre	335.19
V	375 mm dia stoneware pipes	One metre	416.42
vi	450 mm dia stoneware pipes	One metre	429.00
b	Laying and jointing PVC slotted pipes in the inflitration gallery excluding cost of pipes but including charges for special tools and plants etc., complete such as air compressor and helmet.		
	200 mm dia (OD) PVC pipes	One metre	148.72
	315 mm dia (OD) PVC pipes	One metre	228.80
С	Refilling gallery trench and filter basins with clean excavated sand free from silt and clay	One cubic metre	15.90

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
6	Labour charges for laying filter media below		
	water level in all depths as per specification		
	for infiltration gallery works including		
	screening cleaning and charges for special		
	tools and plant etc.,complete such as air		
	compressor, helmets, sheet piles		
a	Granite metal 6mm to 40mm	One cubic metre	208.21
b	Coarse sand passing through a sieve of		
	four meshes to 2.5 centimetres and retained		
	in a sieve of ten meshes to 2.5 centimetres		
	and filling it under water	One cubic metre	1034.18
С	Coarse sand passing through a sieve of		
	ten meshes to 2.5 centimetres and		
	retained in a sieve of 200 meshes to 2.5		
	centimetres and filling it under water	One cubic metre	392.39
d.	Cost of coarse sand D-10 and D-20 for		
	laying gallery media for a lead not exceeding		
	200m from the source to the place of		
	stacking including stacking etc., complete.	One cubic metre	266.55
e.	Cost of hard granite metal of size (B.S.S.)		
	6 mm to 12 mm filter media (machine		
	crushed)	One cubic metre	1404.83
	(i) NOTE: For 6(a),(b) and (c):		
	The above rates are labour charges for		
	laying the filter media including screening,		
	cleaning etc., for a lead not exceeding 200		
	metres from the place of stacking to the		
	point of laying the media. The cost of		
	materials and the lead from the source to		
	the place of stacking are to be paid for		
	separately.		
	(ii) NOTE: FOR 6(d):		
	The above rates are applicable to cases		
	where the screened materials is not less		
	than 10% of the collected material. In		
	specific cases where the screened material		
	is less than 10% of the collected material,		
	prior orders of the Superintending Engineer,		
	TWAD Board are to be obtained in specific		
	cases for increased rate of labour required.		

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
	(iii) NOTE: FOR 6(e)		
	The above rates are applicable to cases		
	where the screened materials is not less		
	than 20% of the collected materials. In		
	case where the screened materials is less		
	than 20% of the collected material, prior		
	orders of the Superintending Engineer,		
	TWAD are to be obtained in specific cases		
	for increased rate of labour required.		
7a	Lowering of C.I Pipes and specials in the		
	trenches and laying to proper grade and		
	alignment and as directed by the TWAD		
	Officers.		
	For depth upto 2m		
	80 mm dia C.I Pipes and Specials	One metre	10.77
	100 mm dia C.I Pipes and Specials	One metre	12.42
	125 mm dia C.I Pipes and Specials	One metre	16.05
	150 mm dia C.I Pipes and Specials	One metre	21.82
	200 mm dia C.I Pipes and Specials	One metre	26.36
	250 mm dia C.I Pipes and Specials	One metre	33.39
	300 mm dia C.I Pipes and Specials	One metre	37.14
	350 mm dia C.I pipes and specials	One metre	47.54
	400 mm dia C.I pipes and specials	One metre	54.13
	450 mm dia C.I pipes and specials	One metre	62.89
	500 mm dia C.I pipes and specials	One metre	67.19
	600 mm dia C.I pipes and specials	One metre	81.57
	700 mm dia C.I pipes and specials	One metre	105.22
	750 mm dia C.I pipes and specials	One metre	117.01
	800 mm dia C.I pipes and specials	One metre	134.89
	900 mm dia C.I pipes and specials	One metre	157.05
	NOTE: i) For depth between 2m to 4m 10%		
	over basic rates and for 4m to 6m 20%		
	over basic rate allowed		
	ii) For work of laying CI connecting pipe/		
	syphon basic pipe below water, double the		
	above rates shall be allowed.		
	iii) For laying pipes in sewer line except		
	pumping main 10% more is allowed.		

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
7a(i)	Lowering of D.I Pipes and specials in the		
	trenches and laying to proper grade and		
	alignment and as directed by the TWAD		
	Officers.		
	For depth upto 2m		
	80 mm dia D.I Pipes and Specials	One metre	10.70
	100 mm dia D.I Pipes and Specials	One metre	12.44
	125 mm dia D.I Pipes and Specials	One metre	16.08
	150 mm dia D.I Pipes and Specials	One metre	21.82
	200 mm dia D.I Pipes and Specials	One metre	27.03
	250 mm dia D.I Pipes and Specials	One metre	33.29
	300 mm dia D.I Pipes and Specials	One metre	37.99
	350 mm dia D.I pipes and specials	One metre	47.62
	400 mm dia D.I pipes and specials	One metre	54.13
	450 mm dia D.I pipes and specials	One metre	63.96
	500 mm dia D.I pipes and specials	One metre	68.79
	600 mm dia D.I pipes and specials	One metre	85.79
	700 mm dia D.I pipes and specials	One metre	107.82
	750 mm dia D.I pipes and specials	One metre	117.98
	800 mm dia D.I pipes and specials	One metre	136.44
	900 mm dia D.I pipes and specials	One metre	158.77
	NOTE: i) For depth between 2m to 4m		
	10% over basic rates and for 4m to 6m		
	20% over basic rate allowed		
	ii) For work of laying DI connecting pipe/		
	syphon basic pipe below water, double the		
	above rates shall be allowed.		
	iii) For laying pipes in sewer line except		
	pumping main 10% more is allowed.		
b	Lowering GI pipes and specials in the		
	trenches and laying to proper grade and		
	alignment and as directed by the TWAD		
	Officers		
	15mm to 40mm dia	One metre	10.99
	50mm to 65mm dia	One metre	10.99
	80mm to 100mm dia	One metre	14.78
	125mm to 150mm dia	One metre	14.78
С	Disjointing C.I. Tyton S/S pipes and		
	specials, and lifting C.I. Pipes from the		
	trenches and stacking at places shown by		
	the departmental Officers.		

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
	For depth upto 2 m		
	80 mm dia C.I. Pipes and specials	One metre	10.87
	100mm dia C.I. Pipes and specials	One metre	12.70
	125 mm dia C.I. Pipes and specials	One metre	14.64
	150 mm dia C.I. Pipes and specials	One metre	20.13
	200 mm dia C.I. Pipes and specials	One metre	21.96
	250 mm dia C.I. Pipes and specials	One metre	34.66
	300 mm dia C.I. Pipes and specials	One metre	36.84
	350 mm dia C.I. Pipes and specials	One metre	47.82
	400 mm dia C.I. Pipes and specials	One metre	51.37
	450 mm dia C.I. Pipes and specials	One metre	60.52
	500 mm dia C.I.pipes and specials	One metre	66.12
	600 mm dia C.I.pipes and specials	One metre	80.77
	700 mm dia C.I.pipes and specials	One metre	93.58
	800 mm dia C.I.pipes and specials	One metre	102.85
	825 mm dia C.I.pipes and specials	One metre	117.60
	900 mm dia C.I.pipes and specials	One metre	130.30
		% excess	
	NOTE: For depth between	allowed over	
		basic rate	
	2m to 4m	10%	
	4m to 6m	20%	
d.	Lowering of M.S pipes and specials into		
	the trenches and laying to proper grade		
	and alignment and as directed by the		
	TWAD Officers.		
	Up to 350mm dia	One metre	33.49
	400 mm Dia	One metre	42.93
	450 mm Dia	One metre	47.48
	500 mm Dia	One metre	49.63
	600 mm Dia	One metre	64.27
	700 mm Dia	One metre	81.77
	900 mm Dia	One metre	115.80
	1000 mm Dia	One metre	146.29
	1050 mm Dia	One metre	155.39
	1100 mm Dia	One metre	162.48
	1200 mm Dia	One metre	168.55
	1400 mm Dia	One metre	252.40
	1600 mm Dia	One metre	334.58
	-	Percentage	
	NOTE: For depth between	excess allowed	
		over basic rate	
	2m to 4m	10%	
	4m to 6m	20%	1

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
8a	Jointing the C.I/ D.I - S/S pipes and		
	specials with molten lead and Yarn including		
	caulking the joints. (Including cost of		
	jointing materials)		
	For depth upto 2m		
	80 mm dia C.I/ D.I - S/S pipes and specials	Each Joint	371.59
	100 mm dia C.I/ D.I - S/S pipes and specials	Each Joint	449.95
	125 mm dia C.I/ D.I - S/S pipes and specials	Each Joint	605.61
	150 mm dia C.I/ D.I - S/S pipes and specials	Each Joint	686.34
	200 mm dia C.I/ D.I - S/S pipes and specials	Each Joint	957.82
	250 mm dia C.I/ D.I - S/S pipes and specials	Each Joint	1360.08
	300 mm dia C.I/ D.I - S/S pipes and specials	Each Joint	1477.96
	350 mm dia C.I/ D.I - S/S pipes and specials	Each Joint	1834.52
	400 mm dia C.I/ D.I - S/S pipes and specials	Each Joint	2236.35
	450 mm dia C.I/ D.I - S/S pipes and specials	Each Joint	3274.43
	500 mm dia C.I/ D.I - S/S pipes and specials	Each Joint	3580.17
	600 mm dia C.I/ D.I - S/S pipes and specials	Each Joint	4483.88
	700 mm dia C.I/ D.I - S/S pipes and specials	Each Joint	4920.76
	750 mm dia C.I/ D.I - S/S pipes and specials	Each Joint	6063.49
		Percentage	
	NOTE: For depth between	excess	
		allowed	
		over basic rate	
	2m to 4m	10%	
	4m to 6m	15%	
8b	Jointing C.I/ D.I-S/S pipes and specials		
	with rubber gaskets (tyton joint) including		
	cost of lubricants. (including cost of jointing		
	materials)		
	For depth upto 2m		
	80 mm dia C.I/ D.I-S/S pipes and specials	Each Joint	39.17
	100 mm dia C.I/ D.I-S/S pipes and specials	Each Joint	49.55
	125 mm dia C.I/ D.I-S/S pipes and specials	Each Joint	50.55
	150 mm dia C.I/ D.I-S/S pipes and specials	Each Joint	53.55
	200 mm dia C.I/ D.I-S/S pipes and specials	Each Joint	91.26
	250 mm dia C.I/ D.I-S/S pipes and specials	Each Joint	124.65
	300 mm dia C.I/ D.I-S/S pipes and specials	Each Joint	152.31
	350 mm dia C.I/ D.I-S/S pipes and specials	Each Joint	167.31
	400 mm dia C.I/ D.I-S/S pipes and specials	Each Joint	217.31
	450 mm dia C.I/ D.I-S/S pipes and specials	Each Joint	306.55
	500 mm dia C.I/ D.I-S/S pipes and specials	Each Joint	376.55
	600 mm dia C.I/ D.I-S/S pipes and specials	Each Joint	515.55

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
	700 mm dia C.I/ D.I-S/S pipes and specials	Each Joint	693.65
	750 mm dia C.I/ D.I-S/S pipes and specials	Each Joint	865.60
	800 mm dia C.I/ D.I-S/S pipes and specials	Each Joint	1118.00
	900 mm dia C.I/ D.I-S/S pipes and specials	Each Joint	1482.20
	NOTE: For depth between	Percentage excess allowed over basic rate	
	2m to 4m	10%	
	4m to 6m	20%	
8c	Jointing the C.I/ D.I Double flanged pipes and specials with rubber insertion to the required specifications with M.S. bolts and nuts, complete. (including cost of jointing materials)		
	For depth upto 2m		
	For works above water level		
	80 mm dia C.I/ D.I Double flanged pipes		
	and specials	Each Joint	123.83
	100 mm dia C.I./D.I. Double flanged pipes		
	and specials	Each Joint	215.88
	125 mm dia C.I/ D.I Double flanged pipes and specials	Each Joint	223.90
	150 mm dia C.I./D.I. Double flanged pipes and specials	Each Joint	359.98
	200 mm dia C.I/ D.I Double flanged pipes and specials	Each Joint	398.89
	250 mm dia C.I/ D.I Double flanged pipes and specials	Each Joint	568.29
	300 mm dia C.I/ D.I Double flanged pipes and specials	Each Joint	628.96
	350 mm dia C.I/ D.I Double flanged pipes and specials	Each Joint	815.47
	400 mm dia C.I/ D.I Double flanged pipes and specials	Each Joint	1220.48
	450 mm dia C.I/ D.I Double flanged pipes and specials	Each Joint	1418.12
	500 mm dia C.I/ D.I Double flanged pipes and specials	Each Joint	1682.02
	600 mm dia C.I/ D.I Double flanged pipes and specials	Each Joint	2322.00

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
	700 mm dia C.I/ D.I Double flanged pipes		
	and specials	Each Joint	2436.03
	750 mm dia C.I/ D.I Double flanged pipes		
	and specials	Each Joint	2503.06
	800 mm dia C.I/ D.I Double flanged pipes		
	and specials	Each Joint	2522.23
	900 mm dia C.I/ D.I Double flanged pipes		
	and specials	Each Joint	2969.72
	NOTE: For depthbetween	Percentage excess allowed over basic rate	
	2m to 4m	10%	
	4m to 6m	15%	
8d	Jointing C.I/ D.I double flanged pipes and specials with rubber insertion or any equivalent to the required specifications with M.S. bolts and nuts etc., complete including charges for special tools and plants such as air compressor and helmets and sheet piles. etc (including cost of jointing materials)		
	For depth upto 2m		
	For works below water level		
	80 mm dia C.I/ D.I Double flanged Pipes and specials	Each Joint	248.02
	100 mm dia C.I/ D.I Double flanged Pipes and specials	Each Joint	369.40
	125 mm dia C.I/ D.I Double flanged Pipes and specials	Each Joint	411.84
	150 mm dia C.I/ D.I Double flanged Pipes and specials	Each Joint	588.24
	200 mm dia C.I/ D.I Double flanged Pipes and specials	Each Joint	678.28
	250 mm dia C.I/ D.I Double flanged Pipes and specials	Each Joint	926.53
	300 mm dia C.I/ D.I Double flanged Pipes and specials	Each Joint	1022.16
	350 mm dia C.I/ D.I Double flanged Pipes and specials	Each Joint	1266.64
	400 mm dia C.I/ D.I Double flanged Pipes and specials	Each Joint	1740.94

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
	450 mm dia C.I/ D.I Double flanged Pipes		
	and specials	Each Joint	1937.71
	500 mm dia C.I/ D.I Double flanged Pipes		
	and specials	Each Joint	2275.99
	600 mm dia C.I/ D.I Double flanged Pipes		
	and specials	Each Joint	3204.46
		Percentage	
	NOTE: For depth between	excess allowed	
		over basic rate	
	2m to 4m	10%	
	4m to 6m	15%	
8e	Jointing the C.I/ D.I-S/S pipes and specials		
	with neat cement or cement mortar and		
	spun yarn including caulking the joints,		
	curing. (including cost of jointing materials)		
	For depth upto 2m		
	80mm dia C.I/ D.I-S/S Pipes and Specials	Each Joint	89.88
	100mm dia C.I/ D.I-S/S Pipes and Specials	Each Joint	93.19
	125mm dia C.I/ D.I-S/S Pipes and Specials	Each Joint	121.04
	150mm dia C.I/ D.I-S/S Pipes and Specials	Each Joint	139.48
	200mm dia C.I/ D.I-S/S Pipes and Specials	Each Joint	221.20
	250mm dia C.I/ D.I-S/S Pipes and Specials	Each Joint	256.09
	300mm dia C.I/ D.I-S/S Pipes and Specials	Each Joint	306.28
	350mm dia C.I/ D.I-S/S Pipes and Specials	Each Joint	373.22
	400mm dia C.I/ D.I-S/S Pipes and Specials	Each Joint	429.27
	450mm dia C.I/ D.I-S/S Pipes and Specials	Each Joint	526.03
	500mm dia C.I/ D.I-S/S Pipes and Specials	Each Joint	591.01
	600mm dia C.I/ D.I-S/S Pipes and Specials	Each Joint	733.61
	700mm dia C.I/ D.I-S/S Pipes and Specials	Each Joint	810.43
		Percentage	
	NOTE: For depth between	excess allowed	
		over basic rate	
	2m to 4m	10%	
	4m to 6m	15%	
9	Lowering RCC pipes and specials into the		
	trenches and laying to proper grade and		
	alignment		
	For depth upto 2m		
	150mm dia R.C.C. Pipes and Specials	One metre	32.95
	200mm dia R.C.C. Pipes and Specials	One metre	34.66
	250mm dia R.C.C. Pipes and Specials	One metre	44.04

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
	300mm dia R.C.C. Pipes and Specials	One metre	51.37
	350mm dia R.C.C. Pipes and Specials	One metre	64.18
	400mm dia R.C.C. Pipes and Specials	One metre	69.67
	450mm dia R.C.C. Pipes and Specials	One metre	80.77
	500mm dia R.C.C. Pipes and Specials	One metre	93.58
	600mm dia R.C.C. Pipes and Specials	One metre	108.34
	700mm dia R.C.C. Pipes and Specials	One metre	121.26
	750mm dia R.C.C. Pipes and Specials	One metre	126.64
	800mm dia R.C.C. Pipes and Specials	One metre	154.33
	900mm dia R.C.C. Pipes and Specials	One metre	181.78
	1000mm dia R.C.C. Pipes and Specials	One metre	209.47
	1100mm dia R.C.C. Pipes and Specials	One metre	244.36
	1200mm dia R.C.C. Pipes and Specials	One metre	272.04
	1300mm dia R.C.C. Pipes and Specials	One metre	299.50
	NOTE: For depth between	% excess allowed over basic rate	
	2m to 4m	10%	
	4m to 6m	15%	
i)	Each Collar joint is to be treated as one joint only		
ii)	For laying RCC pipes in sewage lines, except pumping main, 5% more is allowed		
10a	Jointing RCC pipes with cement using necessary collars including the cost of jointing materials.  For depth upto 2m		
	150mm dia R.C.C. Pipes and Specials	Each Joint	178.12
	200mm dia R.C.C. Pipes and Specials	Each Joint	218.50
	250mm dia R.C.C. Pipes and Specials	Each Joint	268.27
	·		<b>_</b>
	300mm dia R.C.C. Pipes and Specials	Each Joint	301.44
	350mm dia R.C.C. Pipes and Specials	Each Joint	323.52
	400mm dia R.C.C. Pipes and Specials	Each Joint	349.15
	450mm dia R.C.C. Pipes and Specials	Each Joint	409.78
	500mm dia R.C.C. Pipes and Specials	Each Joint	452.22
	600mm dia R.C.C. Pipes and Specials	Each Joint	538.60
	700mm dia R.C.C. Pipes and Specials	Each Joint	626.80
	750mm dia R.C.C. Pipes and Specials	Each Joint	661.92
	800mm dia R.C.C. Pipes and Specials	Each Joint	687.54
	900mm dia R.C.C. Pipes and Specials	Each Joint	781.12
	1000mm dia R.C.C. Pipes and Specials	Each Joint	799.66

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
	1100mm dia R.C.C. Pipes and Specials	Each Joint	875.05
	1200mm dia R.C.C. Pipes and Specials	Each Joint	970.68
	1300mm dia R.C.C. Pipes and Specials	Each Joint	1073.64
	NOTE: For depth between	% excess allowed over basic rate	
	2m to 4m	10%	
	4m to 6m	15%	
	Each collar joint is to be treated as one	1070	
	joint only.		
10b	Jointing RCC pipes with lead and hemp yarn		
. 0.0	using steel collars including the cost of		
	jointing materials and caulking the joints.		
	For depth upto 2m		
	150mm dia R.C.C. Pipes	Each steel collar	189.22
	200mm dia R.C.C. Pipes	Each steel collar	237.04
	250mm dia R.C.C. Pipes	Each steel collar	281.08
	300mm dia R.C.C. Pipes	Each steel collar	325.24
	350mm dia R.C.C. Pipes	Each steel collar	369.40
	400mm dia R.C.C. Pipes	Each steel collar	384.16
	450mm dia R.C.C. Pipes	Each steel collar	481.51
	500mm dia R.C.C. Pipes	Each steel collar	538.60
	600mm dia R.C.C. Pipes	Each steel collar	643.39
	700mm dia R.C.C. Pipes	Each steel collar	768.42
	800mm dia R.C.C. Pipes	Each steel collar	884.31
	occininala N.C.C. Tipes	Percentage	00 1.0 1
	NOTE: For depth between	excess allowed	
		over basic rate	
	2m to 4m	10%	
	4m to 6m	15%	
11a	Lowering AC/ GRP pipes and specials into		
	the trench carefully, laying to proper grade		
	and alignment, jointing of A.C/ GRP pipes		
	with simplex joints with rubber rings or with		
	C.I. detachable joints or with M.S. couplers.		
	For depth upto 2m		
	80mm dia AC/ GRP Pipes	One metre	16.36
	100mm dia AC/ GRP Pipes	One metre	21.96
	125mm dia AC/ GRP Pipes	One metre	32.95
	150mm dia AC/ GRP Pipes	One metre	36.72
	200mm dia AC/ GRP Pipes	One metre	49.42
	250mm dia AC/ GRP Pipes	One metre	60.52

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
	300mm dia AC/ GRP Pipes	One metre	77.11
	350mm dia AC/ GRP Pipes	One metre	86.14
	400mm dia AC/ GRP Pipes	One metre	99.18
	450mm dia AC/ GRP Pipes	One metre	115.77
	500mm dia AC/ GRP Pipes	One metre	137.74
	600mm dia AC/ GRP Pipes	One metre	165.42
	700mm dia AC/ GRP Pipes	One metre	203.98
	, communation of a report	% excess	200.70
	NOTE: For depth between	allowed over	
		basic rate	
	2m to 4m	15%	
	4m to 6m	30%	
11b (i)	Lowering PVC rigid pipes and specials to trench and laying to proper grade and alignment, jointing with PVC couplers with cement paste.		
	For depth upto 2m		
	Upto 40mm dia (OD) PVC pipe	One metre	6.45
	50mm to 75mm dia (OD) PVC pipe	One metre	10.92
	90mm to 110mm dia (OD) PVC pipe	One metre	11.02
	125mm to 160mm dia (OD) PVC pipe	One metre	15.54
	180mm to 250mm dia (OD) PVC pipe	One metre	20.21
	Over 250mm to 315mm dia (OD) PVC pipe	One metre	29.16
	NOTE: For depth between	Percentage excess allowed over basic rate	
	2m to 4m	15%	
	4m to 6m	30%	
1b (ii)	Lowering HDPE pipes and specials to trench and laying to proper grade and alignment and as directed by the TWAD Officers		
	For depth upto 2m	0	10.07
	50mm to 75mm dia (OD) HDPE pipe	One metre	10.87
	90mm to 110mm dia (OD) HDPE pipe	One metre	10.87
	125mm to 160mm dia (OD) HDPE pipe	One metre	15.33
	180mm to 250mm dia (OD) HDPE pipe	One metre	19.68
	Over 250mm to 315mm dia (OD)HDPE pipe	One metre	28.60
	NOTE: For depth between	Percentage excess allowed over basic rate	
	2m to 4m	15%	
	4m to 6m	30%	

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
11c	Lowering PSC/ BWSC pipes and specials		
	into the trench and laying to proper grade		
	and alignment and Jointing with rubber		
	gaskets		
	For depth upto 2m		
	Upto 350mm diameter	One metre	86.14
	400mm diameter	One metre	100.90
	450mm diameter	One metre	117.49
	500mm diameter	One metre	137.74
	600mm diameter	One metre	167.02
	700mm diameter	One metre	187.50
	800mm diameter	One metre	203.98
	900mm diameter	One metre	222.28
	1000mm diameter	One metre	242.53
	1100mm diameter	One metre	261.06
	1200mm diameter	One metre	301.44
	1300mm diameter	One metre	334.51
	1400mm diameter	One metre	384.16
	1500mm diameter	One metre	426.37
		Percentage	
	NOTE: For depth between	excess allowed	
		over basic rate	
	2m to 4m	15%	
	4m to 6m	30%	
11d	Lowering CI collars with flange into the	0070	
114	trench and laying to proper grade and		
	alignment and jointing PSC pipes with 2		
	Nos of conical rubber rings and MS bolts		
	and nuts excluding the cost of jointing		
	materials.		
	For depth upto 2m		
	Upto 350mm diameter	Each collar	917.37
	400mm diameter	Each collar	1073.64
	450mm diameter	Each collar	1229.91
	500mm diameter	Each collar	1384.24
	600mm diameter	Each collar	1687.74
	700mm diameter	Each collar	2147.40
	800mm diameter	Each collar	2307.22
	900mm diameter	Each collar	2614.38
	1000mm diameter	Each collar	3070.50
	1100mm diameter	Each collar	
			3380.98
	1200mm diameter	Each collar	3842.58
	1300mm diameter	Each collar	4309.56

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
		% excess	•
	NOTE: For depth between	allowed over	
		basic rate	
	2m to 4m	15%	
	4m to 6m	30%	
11e	Testing of M.S. / C.I. / D.I / P.V.C. / H.D.P.E		
	/ pipes with hydraulic testing equipment		
	by filling with water (including cost of water		
	@ Rs. 60/KL) and testing to recommended		
	pressure in convenient stretches and		
	attending the bursts if any occured during		
	the test, excluding the cost of pipes but		
	including other incidential and operational		
	charges etc., complete for the following		
	diametres of pipes.		17.00
	Up to 100mm	One metre	47.02
	125mm	One metre	55.37
	150mm	One metre	62.23
	200mm	One metre	76.08
	250mm	One metre	95.41
	300mm	One metre	116.23
	350mm	One metre	136.94
	400mm	One metre	159.13
	450mm	One metre	182.70
	500mm	One metre	222.85
	600mm	One metre	265.75
	700mm	One metre	337.71
	750mm	One metre	394.45
	900mm	One metre	455.31
	1050mm	One metre	586.87
	1200mm	One metre	737.77
12a	Cutting C.I. Pipes true to axis and filing		
	smoothly and finishing the ends complete		
	80mm dia CI pipes	Each cutting	32.95
	100mm dia CI pipes	Each cutting	36.72
	125mm dia CI pipes	Each cutting	45.76
	150mm dia CI pipes	Each cutting	51.37
	175mm dia CI pipes	Each cutting	60.52
	200mm dia CI pipes	Each cutting	82.48
	250mm dia CI pipes	Each cutting	104.68
	300mm dia CI pipes	Each cutting	117.49

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
	350mm dia CI pipes	Each cutting	148.83
	375mm dia CI pipes	Each cutting	183.84
	400mm dia CI pipes	Each cutting	192.88
	450mm dia CI pipes	Each cutting	207.41
	500mm dia CI pipes	Each cutting	229.60
	525mm dia CI pipes	Each cutting	277.42
	600mm dia CI pipes	Each cutting	283.14
	675mm dia CI pipes	Each cutting	338.17
	700mm dia CI pipes	Each cutting	356.58
	750mm dia CI pipes	Each cutting	367.68
	800mm dia CI pipes	Each cutting	385.99
	825mm dia CI pipes	Each cutting	420.88
	850mm dia CI pipes	Each cutting	441.13
	900mm dia CI pipes	Each cutting	452.22
12b	Cutting A.C. Pipes true to axis and		
	finishing the ends complete		
	80mm dia AC pipes	Each cutting	12.70
	100mm dia AC pipes	Each cutting	14.64
	125mm dia AC pipes	Each cutting	16.36
	150mm dia AC pipes	Each cutting	20.13
	200mm dia AC pipes	Each cutting	27.34
	250mm dia AC pipes	Each cutting	44.04
	300mm dia AC pipes	Each cutting	45.76
	350mm dia AC pipes	Each cutting	55.03
	400mm dia AC pipes	Each cutting	67.72
	450mm dia AC pipes	Each cutting	77.11
	500mm dia AC pipes	Each cutting	88.20
	600mm dia AC pipes	Each cutting	100.90
	700mm dia AC pipes	Each cutting	112.00
12c	Cutting P.V.C. rigid pipes and specials true		
	to axis and finishing the ends complete		
	Upto 75mm dia (OD) PVC pipe	Each cutting	4.23
	90mm dia PVC pipes	Each cutting	6.41
	110mm dia PVC pipes	Each cutting	6.41
	125mm dia PVC pipes	Each cutting	6.41
	140mm dia PVC pipes	Each cutting	6.41
	160mm dia PVC pipes	Each cutting	10.87
	180mm dia PVC pipes	Each cutting	13.04
	200mm dia PVC pipes	Each cutting	13.04
	250mm dia PVC pipes	Each cutting	15.33
	315mm dia PVC pipes	Each cutting	17.39

Schedule I tem No.	Description	n Unit	
12d.	Cutting and Threading of GI pipes		
a.i	15mm dia GI pipe, Cutting	Each	5.43
ii.	15mm dia GI pipe, Threading	Each	7.66
b.i	20mm dia GI pipe, Cutting	Each	5.43
ii.	20mm dia GI pipe, Threading	Each	7.89
c.i	25mm dia GI pipe, Cutting	Each	6.58
ii.	25mm dia GI pipe, Threading	Each	16.02
d.i	32mm dia GI pipe, Cutting	Each	7.89
ii	32mm dia GI pipe, Threading	Each	21.62
e.i	40mm dia GI pipe, Cutting	Each	10.52
ii	40mm dia GI pipe, Threading	Each	24.31
f.i	50mm dia GI pipe, Cutting	Each	13.44
ii.	50mm dia GI pipe, Threading	Each	27.06
g.i	65mm dia GI pipe, Cutting	Each	14.64
ii	65mm dia GI pipe, Threading	Each	32.55
h.i	80mm dia GI pipe, Cutting	Each	18.99
ii.	80mm dia GI pipe, Threading	Each	41.01
i.i	100mm dia GI pipe, Cutting	Each	27.06
ii.	100mm dia GI pipe, Threading	Each	54.28
j.i.	125mm dia GI pipe, Cutting	Each	29.17
j.ii.	125mm dia GI pipe, Threading	Each	58.63
13	Cutting R.C.C. Pipes true to axis and		
	finishing the ends complete		
	150mm dia R.C.C. Pipes	Each cutting	45.76
	200mm dia R.C.C. Pipes	Each cutting	51.37
	250mm dia R.C.C. Pipes	Each cutting	66.12
	300mm dia R.C.C. Pipes	Each cutting	86.14
	350mm dia R.C.C. Pipes	Each cutting	89.92
	400mm dia R.C.C. Pipes	Each cutting	115.54
	450mm dia R.C.C. Pipes	Each cutting	126.64
	500mm dia R.C.C. Pipes	Each cutting	141.40
	600mm dia R.C.C. Pipes	Each cutting	157.99
	650mm dia R.C.C. Pipes	Each cutting	165.42
	700mm dia R.C.C. Pipes	Each cutting	181.78
	750mm dia R.C.C. Pipes	Each cutting	187.50
	800mm dia R.C.C. Pipes	Each cutting	205.81
	900mm dia R.C.C. Pipes	Each cutting	218.50
	1000mm dia R.C.C. Pipes	Each cutting	235.32
	1100mm dia R.C.C. Pipes	Each cutting	251.68
	1200mm dia R.C.C. Pipes	Each cutting	270.10
	1300mm dia R.C.C. Pipes	Each cutting	281.08

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
14a	Removing the burst C.I. pipes from the pipe line and removal of slushy soil and baling out water and replacing the pipeline with sound pipe including jointing and cost of refilling the pipeline with water for retesting the pipe line etc complete. (excluding cost of sound pipe and jointing materials and earth work) and as directed		
	by the TWAD Board Officers.		
	For depth upto 2m		
	80mm dia C.I. Pipes	Each	851.25
	100mm dia C.I. Pipes	Each	1068.04
	125mm dia C.I. Pipes	Each	1395.22
	150mm dia C.I. Pipes	Each	1759.36
	200mm dia C.I. Pipes	Each	2454.34
	250mm dia C.I. Pipes	Each	3373.77
	300mm dia C.I. Pipes	Each	4292.97
	350mm dia C.I. Pipes	Each	4861.20
	400mm dia C.I. Pipes	Each	6210.66
	450mm dia C.I. Pipes	Each	6765.96
	500mm dia C.I. Pipes	Each	7591.47
	600mm dia C.I. Pipes	Each	9288.59
	700mm dia C.I. Pipes	Each	10139.73
	750mm dia C.I. Pipes	Each	11636.42
	800mm dia C.I. Pipes	Each	13142.27
	825mm dia C.I. Pipes	Each	15585.74
	900mm dia C.I. Pipes	Each	19014.88
	NOTE: For depth between	Percentage excess allowed over basic rate	
	2m to 4m	15%	
	4m to 6m	30%	
14b	Removing the burst A.C. Pipes from the pipe line and removal of slushy soil and baling out water and replacing the pipe line with sound pipe including jointing and cost of refilling the pipe line with water for retesting the pipe line etc complete (excluding cost of sound pipe and jointing materials and earth work) and as directed by the TWAD Board Officers		

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
	For depth upto 2m		
	80mm dia AC. Pipes	Each	492.61
	100mm dia AC. Pipes	Each	582.64
	125mm dia AC. Pipes	Each	733.30
	150mm dia AC. Pipes	Each	939.34
	200mm dia AC. Pipes	Each	1318.12
	250mm dia AC. Pipes	Each	1685.80
	300mm dia AC. Pipes	Each	2099.58
	350mm dia AC. Pipes	Each	2305.62
	375mm dia AC. Pipes	Each	2594.02
	400mm dia AC. Pipes	Each	2746.74
	450mm dia AC. Pipes	Each	2805.55
	500mm dia AC. Pipes	Each	3081.36
	600mm dia AC. Pipes	Each	3586.90
	700mm dia AC. Pipes	Each	4418.01
	700mm dia 710. Tipes	% excess	7410.01
	NOTE: For depth between	allowed over	
	NOTE. FOR depth between	basic rate	
	2m to 4m	15%	
	4m to 6m	30%	
14c	Removing the burst P.V.C. Pipes from the	0070	
140	pipe line and removal of slushy soil and		
	baling out water and replacing the pipe		
	line with sound pipe including jointing and		
	cost of refilling the pipe line with water		
	for retesting the pipe line etc., complete		
	(excluding cost of sound pipe and jointing		
	materials and earth work) and as directed		
	by the TWAD Board Officers		
	Upto 63mm dia (OD) PVC Pipes	Each	251.68
	75mm dia (OD) PVC Pipes	Each	316.09
	90mm dia (OD) PVC Pipes	Each	420.88
	110mm dia (OD) PVC Pipes	Each	511.02
	125mm dia (OD) PVC Pipes	Each	606.66
	140mm dia to 160mm dia (OD) PVC Pipes	Each	748.29
	180mm dia to 200mm dia (OD) PVC Pipes	Each	1146.52
	250mm dia to 280mm dia (OD) PVC Pipes	Each	1397.28
	315mm dia (OD) PVC Pipes	Each	1557.10
	0.000 mm dia (0 <i>D)</i> 1 vo 1 ipos	Percentage	1007.10
	NOTE: For depth between	excess allowed	
		over basic rate	
	2m to 4m	15%	
	ZIII 10 TIII	30%	ļ

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
14d	Removing the burst R.C.C. pipes from the		
	pipe line and removal of slushy soil and		
	baling out water and replacing the pipe		
	line with sound pipe including jointing and		
	cost of refilling the pipe line with water for		
	retesting the pipe line etc., complete.		
	(excluding cost of sound pipe and jointing		
	materials and earth work) and as directed		
	by the TWAD Board Officers		
	For depth upto 2m		
	150mm dia RCC Pipes	Each	1367.88
	200mm dia RCC Pipes	Each	1923.06
	250mm dia RCC Pipes	Each	2390.16
	300mm dia RCC Pipes	Each	2838.61
	350mm dia RCC Pipes	Each	3360.84
	375mm dia RCC Pipes	Each	3993.36
	400mm dia RCC Pipes	Each	4300.30
	450mm dia RCC Pipes	Each	4807.77
	500mm dia RCC Pipes	Each	5350.26
	525mm dia RCC Pipes	Each	6089.40
	600mm dia RCC Pipes	Each	6254.82
	650mm dia RCC Pipes	Each	6979.32
	700mm dia RCC Pipes	Each	7119.00
	800mm dia RCC Pipes	Each	7856.31
	900mm dia RCC Pipes	Each	8678.16
	1000mm dia RCC Pipes	Each	9487.19
	1100mm dia RCC Pipes	Each	10336.61
	1200mm dia RCC Pipes	Each	11156.63
	1300mm dia RCC Pipes	Each	11704.61
	NOTE: For depth between	Percentage	
		excess allowed	
		over basic rate	
	2m to 4m	15%	
	4m to 6m	30%	
	For sewerline works (Except pumping main)		
	5% extra over the above rate may be adopted.		
14e	Charges for fixing MS Stepped split up collar		
	in position in the spigot and socket ends		
	of the PSC pipe carefully and caulking the		
	sides of the collar using hemp yarn cement		
	and hard concrete and pouring the cement		

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
	slurry mixed with use of hard concrete in		
	the stepped collar including cost of		
	materials etc. complete but excluding cost		
	of stepped collar as directed by the TWAD		
	Board Officers		
	Upto 1500mm dia PSC pipes	Each	8999.85
	Upto 1000mm dia PSC pipes	Each	7194.27
	Upto 800mm dia PSC pipes	Each	4195.62
	Upto 700mm dia PSC pipes	Each	4142.08
	Upto 600mm dia PSC pipes	Each	4092.66
	Upto 500mm dia PSC pipes	Each	3965.68
Note:	For lighting arrangements during night		
	works due to emergency actual		
	expenditure incurred based on need for		
	lighting may be given extra as certified by		
	the Executive Engineer incharge of work		
	at site		
14f	Charges for lowering, positioning and fixing		
	MS steps collars in AC pipe line carefully		
	and caulking the sides of collar using hemp		
	yarn, cement and hard concrete into the		
	stepped collar including cost of jointing		
	materials such as cement, yarn, bolt and		
	nuts, MS washers, RI sheet and hard		
	concrete etc. but excluding cost of step		
	collar and as directed by TWAD Officers	Each	2998.54
	For 500mm dia AC pipe		
	For 600mm dia AC pipe	Each	3296.32
;\	For 700mm dia AC pipe	Each	3748.77
i)	For removing the burst pipe in the maintenance works when burst occurs and		
	replacing it with sound pipes including the		
	cost of refilling the trench and the removal		
	of slushy soil etc., Complete (Pipes and		
	special jointing materials will be supplied		
	with in 200m lead and at the respective		
	TWAD Board divisional stores free of cost).		
	2 times ordinary rate allowed for the works		
	are done during day time since the works		
	are done in confined reaches.		
ii)	If the works are done in odd hours (i.e)		
,	8.00 P.M. to 8.00 A.M. of the next day, 3		

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
	times of ordinary rate is allowed since the		
	works are done in the confined reaches.		
	Slow Sand / Rapid Sand Filter Works		
15 a.i)	Labour for filling with broken stone of all		
	sizes well washed and cleaned, to be free		
	from impurities, including stacking and		
	laying in bed	One cubic metre	97.24
ii)	Labour for filling the coarse sand passing		
	through a sieve of 10 meshes to 2.5 cm		
	and retained in 20 meshes to 2.5 cm well		
	washed and cleaned to be free from		
	impurities including stacking	One cubic metre	183.84
iii)	Labour for filling with fine sand passing		
	through a sieve of ten meshes to 2.5cm		
	and retained in a sieve of 40 meshes to		
	2.5 cm well washed and cleaned to be		
	free from impurities including stacking	One cubic metre	16.02
15 b	Labour for scraping and removing silt only		
	from the surface and sides of the filter		
	basin carrying the same to a distance not	Out to the land the second to	10.00
15c	exceeding 200 metres	One cubic metre	18.08
150	Labour for removing dirty sand in layer of 25 mm uniform thickness from the slow		
	sand filter, conveying, dropping the sand		
	in a hopper with a lift of not exceeding 3		
	metres within a distance of 30 metres and		
	delivering the washed sand in filter bed		
	including removal and carrying the dirt		
	from collecting chamber to a distance of		
	upto 200 metres.	One square metre	21.85
	DRAINAGE WORKS	3112 2 3 3 1110 110 110	
16	Laying and jointing with cement mortar		
	stoneware pipes and specials in dry		
	condition and testing with water		
	100mm diameter stoneware pipes	One metre	
	150mm diameter stoneware pipes	One metre	
	200mm diameter stoneware pipes	One metre	
	225mm diameter stoneware pipes	One metre	
	250mm diameter stoneware pipes	One metre	
	300mm diameter stoneware pipes	One metre	
	375mm diameter stoneware pipes	One metre	
	450mm diameter stoneware pipes	One metre	

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
	NOTE: The rates to be worked out vide		
	standard data appended as Item 17		
17	Jointing HDPE Pipes and Specials by butt		
	fusion welding/ electro fusion welding joints		
	using fusion equipment as per ISO 21307-		
	2011 and as per IS 7634 (Part-2): 2012		
	including cost of hire charges for butt fusion		
	equipment power supply arrangements		
	etc., complete as per directed by TWAD		
	Board officers.		
1	50mm	Joint	58.30
2	63mm	Joint	72.60
3	75mm	Joint	86.90
4	90mm	Joint	105.60
5	110mm	Joint	127.60
6	125mm	Joint	145.20
7	140mm	Joint	162.80
8	160mm	Joint	184.80
9	180mm	Joint	213.40
10	200mm	Joint	236.50
11	225mm	Joint	267.30
12	250mm	Joint	297.00
13	280mm	Joint	331.10
14	315mm	Joint	372.90
15	355mm	Joint	420.20
16	400mm	Joint	474.10
17	450mm	Joint	532.40
18	500mm	Joint	591.80
19	560mm	Joint	684.20
20	630mm	Joint	782.10
18	Jointing of mechanical joint collar, nuts,		
	gasket and fixing in position as directed		
	by departmental officers.		
1	100mm	Joint	73.70
2	150mm	Joint	179.30
3	200mm	Joint	184.80
4	250mm	Joint	272.80
5	400mm	Joint	574.20
6	450mm	Joint	633.60
7	600mm	Joint	1161.60

Schedule I tem No.	Description	Unit	Rate for 2018 - 19 in Rupees
19	Disjointing of GI pipes as directed by the		
	departmental officers		
1	Upto 80mm	Each	48.40
2	Above 80mm	Each	63.80
20	Welding of GI pipes as directed by the		
	departmental officers for the sizes		
1	Upto 80 mm	One Welding Joint	156.20
2	Above 80mm	One Welding Joint	179.30
Note:	The Basic Rate adopted under this Head		
	" Rates of Works" is exclusive of all taxes		
	and GST		

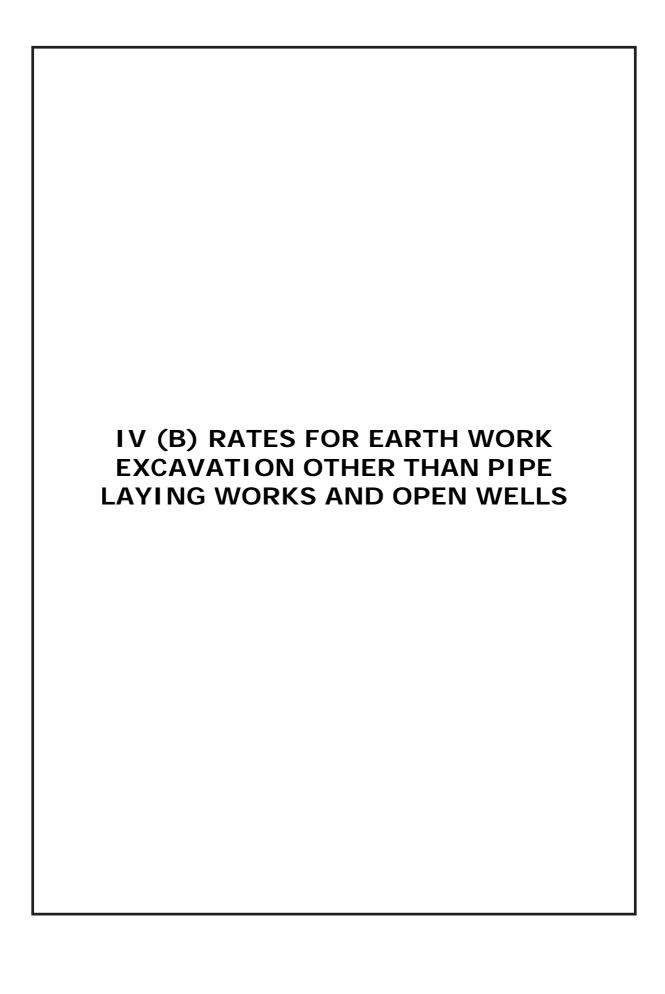
DATA ILLUSTRATION (RATES FOR ITEM No.16) ITEM No.17. LAYING AND JOINTING STONE WARE PIPES FOR ONE RUNNING METRE (Only for illustration purpose assuming Conveyance charges for 20KM for Cement & Sand and 8KM for Stoneware pipes)

			_								
	cost of laying 4 jo are pipes complet I metre ( Rs. P )	wəuots	20	161.13	232.49	263.32	341.71	348.68	9.794	572.88	
acking etc.	st of laying and Jo ss with CM and pa oun or tarred yarn e for 30m length	eqiq W2 qe Atiw	19	4833.78	6974.80	7899.50	10251.25	10460.28	14028.12	17186.49	-
	ng charges includi ance of water tool plants etc. ( Rs.)	couveys	18	261.90	354.78	357.83	414.16	427.87	545.11	612.11	
	eyance of pipes fr yard to site of w		17	244.75	421.99	586.84	797.11	924.92	1466.42	1888.35	
al No.	ost of material and ur for 30 mts. (Tot umn 10 & 15) (Rs	of Labou	16	4327.13	6198.03	6954.83	86'6806	9107.49	12016.59	14686.03	17179.14
10 Of	Labour for a leng SW pipes (Total M 11,12,13 & 14) (F	30m of	15	4016	5725	7679	8321	8321	10983	12580	14177
	Mazdoor Category II	fnuomA	14	940	096	096	1600	1600	1920	2240	2560
	30002011	.soM		2	3	3	2	2	9	7	ω
aying Bu	Category I	fnuomA	13	1775	2130	2130	2485	2485	4260	4970	2680
or La intir	noobseM	.soM		5	9	6	7	7	12	14	16
Labour for Laying and jointing	Fitter II Class	fnuomA	12	467	934	934	1401	1401	1401	1401	1401
La	2044:7	.soM		1	2	2	3	3	3	3	т
	Mason I Class	tnuomA	11	1134	1701	2268	2835	2835	3402	6968	4536
		.soM	Ĺ	2	3	4	5	2	9	7	∞
	ا دمعد of materials ه.۲٫۵ snmulos fo		10	311.13	473.03	662.83	718.98	786.49	1033.59	2106.03	3002.14
	Cost of yarn at Rs. 12.19 Kg	)	6	44.29	66.49	84.18	79.66	101.87	138.35	221.31	332.08
	arred yarn in Kg	1	ω	3.63	5.45	06:90	8.17	8.35	11.34	18.14	27.22
Cost of sand required for 50 mortar joints at Rs. Per cum (168+178.50=346.50)  Quantity of spun of		7	13.86	24.26	27.72	34.65	38.12	51.98	97.02	117.81	
Quantity of sand in cubic metres for 50 mortar joints		9	0.04	0.07	0.08	0.10	0.11	0.15	0.28	0.34	
5530-20+111.70=5621.70)		5	252.98	2.28	550.93	584.66	646.5	843.26	1787.7	2552.25	
for 50 joints  Cost of cement required for 50		Ш		382						-	
Quantity of cement in Kg		4	45	- 89	- 8	104	115	150	318	454	
Weight of S.W pipes for 30m (As per Hand Book of PHE)		3	435	750	1043	1185	1375	2180	2425	'	
u	of each pipe in	геидц	7	09	99	99	09	99	99	09	9
	ameter (in mm)	. DI	-	100	150	200	225	250	300	375	450

For other diametre of pipes now manufactured, the rates will be fixed in due course after observing data. Note:

The rates arrived at adopting the data appended to this schedule of Rates is for works done in the first 2.00m depth extra percentage 5% for 2m to 2.5m, 7.50% for 2.50m to 3m, 10% for 3m to 3.50m 15% for 3.50m to 4m and 20% for above 4m depth over basic rates are allowed.

The above data does not include bailing charges, bailing charges to be added as extra as per rates given in the relevant PWD Schedule of Rates or as per actuals. The conveyance charges adopted for Cement, Sand & Pipes are only for illustration purpose. The average lead for respective districts, as approved by the Chief Engineer shall be adopted for Cement & Sand. The lead for Pipe shall be adopted, as certified by the respective Assistant Executive Engineer. The Basic Rate adopted under this Head " Rates of Works" is exclusive of all taxes and GST ж. .



## EARTH EXCAVATION OTHER THAN PIPE LAYING WORKS AND OPEN WELLS

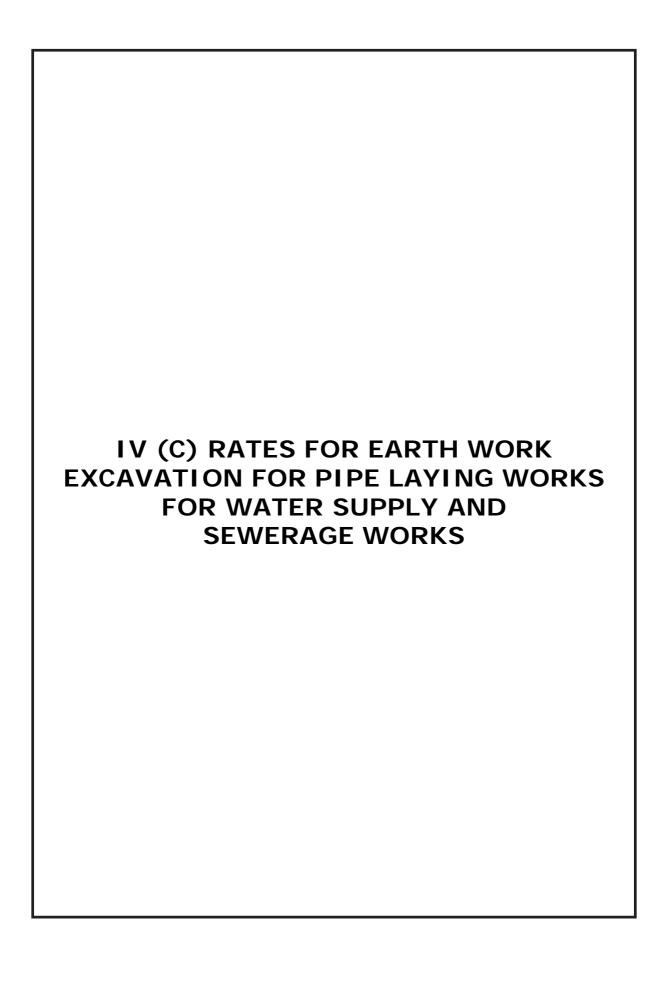
Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
	Earthwork excavating and depositing on bank with an initial lead of 10 metres and initial lift of 2 metres in		
1	Sand, silt or other loose soil, wet sand or silt not under water, light black cotton soil, sandy loam and ordinary soil including excavated earth SS 20 A	Cu.m	46.60
2	Sand, silt or other loose soil, wet sand or silt not under water, light black cotton soil, sandy loam and ordinary soil including excavated earth SS 20 B	Cu.m	42.50
3	Slush and silt under water upto 0.75 metre depth requiring the aid of baskets and vessels SS 20 B	Cu.m	53.20
4	Trimming the bed and side slope of the bank in all soils except hard rock upto a thickness of 7.5 cm and making it ready to receive the concrete.	Sq.m	10.90
4a	7.50 cm to 15cm thick	Sq.m	13.20
5	Sectioning during forming bunds when earth moving machinery, lorries and rollers are used for consolidation.	Cu.m	8.00
6	Hard stiff clay, stiff black cotton, hard red earth, shales, murram, gravel, stoney earth and earth mixed with small size boulders SS 20A	Cu.m	67.80
7	Hard stiff clay, stiff black cotton, hard red earth, shales, murram, gravel, stoney earth and earth mixed with small size boulders SS 20B	Cu.m	63.60
8	Soft disintegrated rock, laterite, soft rock or kankar, not requiring blasting	Cu.m	94.70
9	In loose boulders in excavation of various sizes 150mm to 625mm	Cu.m	150.30
10	Medium Rock and Dense Medium Rock not requiring blasting	Cu.m	166.30
11	Extra for every additional 10 metres lead or part thereof over the initial lead	Cu.m	7.80
12	Extra for every additional 1 metre lift or part thereof over the initial lift	Cu.m	6.20

13 Breaking clods, consolidating and sectioning the earth scooped by bull dozers 15 Add relevant TNDSS No.20A, rates for new tank bunds and closing breaches for extra watering and consolidation. 20 By hand roller 21 Benching old embankment slopes 45cm x 45cm 22 Cu.m 23 By hand roller 25 Cu.m 26 Cu.m 27 Cu.m 28 Cu.m 29 Cu.m 29 Cu.m 20 Cu.m 2	Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
the earth scooped by bull dozers  15 Add relevant TNDSS No.20A, rates for new tank bunds and closing breaches for extra watering and consolidation.  a) By hand roller Cu.m 13.20 b) By power roller including hire charges Cu.m 22.20 16 Benching old embankment slopes 45cm x 45cm Sq.m 2.50 17 Puddle wall work Cu.m 105.00 18 Turfing in slopes including watering and fixing with initial lead upto 50m.  19a Refilling with excavated sand complying with standard specification for filling in foundation and basement 19.b Refilling with excavated soil (other than sand) complying with the standard specification for filling in foundation and basement  20 CUARRYING AND BLASTING a) Hard rock measured in solid including blasting and stacking b) Removing hard rock by wedging chiselling and trimming to proper shape where blasting is prohibited. c) Medium rock and dense medium rock requiring blasting d) Extra for every additional 10 metres lead or part thereof over the initial lead for blasted materials e) Extra for every additional 1 metre lift or part thereof over the initial lift of 2 m for blasted materials f) Benching hard rock upto an average 10cm depth ph Drilling holes in hard granite 32mm diameter RM 144.70 prilling holes in hard granite 45mm diameter RM 144.70 prilling holes in hard granite 50mm diameter RM 144.70 prilling holes in hard granite 50mm diameter RM 144.70 prilling holes in hard granite 50mm diameter RM 169.00 prilling holes in hard granite 50mm diameter	13	Breaking clods, consolidating and sectioning	Cu.m	3.90
tank bunds and closing breaches for extra watering and consolidation.  a) By hand roller Cu.m 13.20 b) By power roller including hire charges Cu.m 22.20 16 Benching old embankment slopes 45cm x 45cm Sq.m 2.50 17 Puddle wall work Cu.m 105.00 18 Turfing in slopes including watering and fixing with initial lead upto 50m. 19a Refilling with excavated sand complying with standard specification for filling in foundation and basement 19.b Refilling with excavated soil (other than sand) complying with the standard specification for filling in foundation and basement 20 QUARRYING AND BLASTING a) Hard rock measured in solid including blasting and stacking b) Removing hard rock by wedging chiselling and trimming to proper shape where blasting is prohibited. c) Medium rock and dense medium rock requiring blasting d) Extra for every additional 10 metres lead or part thereof over the initial lead for blasted materials e) Extra for every additional 1 metre lift or part thereof over the initial lift of 2 m for blasted materials f) Benching hard rock upto an average 10cm depth depth Drilling holes in hard granite 40mm diameter RM 122.00 p) Drilling holes in hard granite 45mm diameter RM 144.70 p) Drilling holes in hard granite 50mm diameter RM 169.00 p) Drilling holes in hard granite 50mm diameter RM 169.00 p) Drilling holes in hard granite 50mm diameter RM 203.00	14		Cu.m	11.80
b) By power roller including hire charges Cu.m 22.20  16 Benching old embankment slopes 45cm x 45cm Sq.m 2.50  17 Puddle wall work Cu.m 105.00  18 Turfing in slopes including watering and fixing with initial lead upto 50m.  19a Refilling with excavated sand complying with standard specification for filling in foundation and basement  19.b Refilling with excavated soil (other than sand) complying with the standard specification for filling in foundation and basement  20 OUARRYING AND BLASTING  a) Hard rock measured in solid including blasting and stacking  b) Removing hard rock by wedging chiselling and trimming to proper shape where blasting is prohibited.  c) Medium rock and dense medium rock requiring blasting  d) Extra for every additional 10 metres lead or part thereof over the initial lead for blasted materials  e) Extra for every additional 1 metre lift or part thereof over the initial lift of 2 m for blasted materials  f) Benching hard rock upto an average 10cm depth  G) Drilling holes in hard granite 45mm diameter RM 122.00  proliting holes in hard granite 45mm diameter RM 169.00  j) Drilling holes in hard granite 50mm diameter RM 203.00	15	tank bunds and closing breaches for extra		
16 Benching old embankment slopes 45cm x 45cm Sq.m 2.50 17 Puddle wall work Cu.m 105.00 18 Turfing in slopes including watering and fixing with initial lead upto 50m. 19a Refilling with excavated sand complying with standard specification for filling in foundation and basement 19.b Refilling with excavated soil (other than sand) complying with the standard specification for filling in foundation and basement 20 QUARRYING AND BLASTING a) Hard rock measured in solid including blasting and stacking b) Removing hard rock by wedging chiselling and trimming to proper shape where blasting is prohibited. c) Medium rock and dense medium rock requiring blasting d) Extra for every additional 10 metres lead or part thereof over the initial lead for blasted materials e) Extra for every additional 1 metre lift or part thereof over the initial lift of 2 m for blasted materials f) Benching hard rock upto an average 10cm depth G) Drilling holes in hard granite 40mm diameter RM 122.00 h) Drilling holes in hard granite 45mm diameter RM 169.00 j) Drilling holes in hard granite 50mm diameter RM 203.00	a)	By hand roller	Cu.m	13.20
17 Puddle wall work 18 Turfing in slopes including watering and fixing with initial lead upto 50m. 19a Refilling with excavated sand complying with standard specification for filling in foundation and basement 19.b Refilling with excavated soil (other than sand) complying with the standard specification for filling in foundation and basement 20 QUARRYING AND BLASTING a) Hard rock measured in solid including blasting and stacking b) Removing hard rock by wedging chiselling and trimming to proper shape where blasting is prohibited. c) Medium rock and dense medium rock requiring blasting c) Medium rock and dense medium rock requiring blasting d) Extra for every additional 10 metres lead or part thereof over the initial lead for blasted materials e) Extra for every additional 1 metre lift or part thereof over the initial lift of 2 m for blasted materials f) Benching hard rock upto an average 10cm depth Sq.m 435.00 g) Drilling holes in hard granite 40mm diameter RM 122.00 h) Drilling holes in hard granite 45mm diameter RM 169.00 j) Drilling holes in hard granite 50mm diameter RM 203.00	b)	By power roller including hire charges	Cu.m	22.20
18 Turfing in slopes including watering and fixing with initial lead upto 50m.  19a Refilling with excavated sand complying with standard specification for filling in foundation and basement  19.b Refilling with excavated soil (other than sand) complying with the standard specification for filling in foundation and basement  20 QUARRYING AND BLASTING  a) Hard rock measured in solid including blasting and stacking  b) Removing hard rock by wedging chiselling and trimming to proper shape where blasting is prohibited.  c) Medium rock and dense medium rock requiring blasting  d) Extra for every additional 10 metres lead or part thereof over the initial lead for blasted materials  e) Extra for every additional 1 metre lift or part thereof over the initial lift of 2 m for blasted materials  f) Benching hard rock upto an average 10cm depth  g) Drilling holes in hard granite 40mm diameter  RM 122.00  j) Drilling holes in hard granite 45mm diameter  RM 169.00  j) Drilling holes in hard granite 50mm diameter  RM 203.00	16	Benching old embankment slopes 45cm x 45cm	Sq.m	2.50
with initial lead upto 50m.  19a Refilling with excavated sand complying with standard specification for filling in foundation and basement  19.b Refilling with excavated soil (other than sand) complying with the standard specification for filling in foundation and basement  20 QUARRYING AND BLASTING  a) Hard rock measured in solid including blasting and stacking  b) Removing hard rock by wedging chiselling and trimming to proper shape where blasting is prohibited.  c) Medium rock and dense medium rock requiring blasting  d) Extra for every additional 10 metres lead or part thereof over the initial lead for blasted materials  e) Extra for every additional 1 metre lift or part thereof over the initial lift of 2 m for blasted materials  f) Benching hard rock upto an average 10cm depth  g) Drilling holes in hard granite 40mm diameter  RM 122.00  j) Drilling holes in hard granite 45mm diameter  RM 169.00  j) Drilling holes in hard granite 50mm diameter  RM 203.00	17	Puddle wall work	Cu.m	105.00
standard specification for filling in foundation and basement  19.b Refilling with excavated soil (other than sand) complying with the standard specification for filling in foundation and basement  20 QUARRYING AND BLASTING  a) Hard rock measured in solid including blasting and stacking  b) Removing hard rock by wedging chiselling and trimming to proper shape where blasting is prohibited.  c) Medium rock and dense medium rock requiring blasting  d) Extra for every additional 10 metres lead or part thereof over the initial lead for blasted materials  e) Extra for every additional 1 metre lift or part thereof over the initial lift of 2 m for blasted materials  f) Benching hard rock upto an average 10cm depth  g) Drilling holes in hard granite 32mm diameter  RM 122.00  h) Drilling holes in hard granite 45mm diameter  RM 169.00  j) Drilling holes in hard granite 50mm diameter  RM 169.00  pilling holes in hard granite 50mm diameter  RM 203.00	18		Sq.m	22.20
complying with the standard specification for filling in foundation and basement  20	19a	standard specification for filling in foundation	Cu.m	19.50
a) Hard rock measured in solid including blasting and stacking  b) Removing hard rock by wedging chiselling and trimming to proper shape where blasting is prohibited.  c) Medium rock and dense medium rock requiring blasting  d) Extra for every additional 10 metres lead or part thereof over the initial lead for blasted materials  e) Extra for every additional 1 metre lift or part thereof over the initial lift of 2 m for blasted materials  f) Benching hard rock upto an average 10cm depth  g) Drilling holes in hard granite 32mm diameter  h) Drilling holes in hard granite 40mm diameter  j) Drilling holes in hard granite 45mm diameter  RM 169.00  j) Drilling holes in hard granite 50mm diameter  RM 203.00	19.b	complying with the standard specification for	Cu.m	22.20
and stacking  b) Removing hard rock by wedging chiselling and trimming to proper shape where blasting is prohibited.  c) Medium rock and dense medium rock requiring blasting  d) Extra for every additional 10 metres lead or part thereof over the initial lead for blasted materials  e) Extra for every additional 1 metre lift or part thereof over the initial lift of 2 m for blasted materials  f) Benching hard rock upto an average 10cm depth  g) Drilling holes in hard granite 40mm diameter  kM 122.00  j) Drilling holes in hard granite 45mm diameter  RM 169.00  RM 203.00	20	QUARRYING AND BLASTING		
b) Removing hard rock by wedging chiselling and trimming to proper shape where blasting is prohibited.  c) Medium rock and dense medium rock requiring blasting  d) Extra for every additional 10 metres lead or part thereof over the initial lead for blasted materials  e) Extra for every additional 1 metre lift or part thereof over the initial lift of 2 m for blasted materials  f) Benching hard rock upto an average 10cm depth  g) Drilling holes in hard granite 32mm diameter  h) Drilling holes in hard granite 45mm diameter  RM 122.00  j) Drilling holes in hard granite 50mm diameter  RM 203.00	a)		Cu.m	450.00
blasting  d) Extra for every additional 10 metres lead or part thereof over the initial lead for blasted materials  e) Extra for every additional 1 metre lift or part thereof over the initial lift of 2 m for blasted materials  f) Benching hard rock upto an average 10cm depth  g) Drilling holes in hard granite 32mm diameter  h) Drilling holes in hard granite 40mm diameter  i) Drilling holes in hard granite 45mm diameter  g) Drilling holes in hard granite 50mm diameter  RM 169.00  j) Drilling holes in hard granite 50mm diameter  RM 203.00	b)	trimming to proper shape where blasting is	Cu.m	903.00
part thereof over the initial lead for blasted materials  e) Extra for every additional 1 metre lift or part thereof over the initial lift of 2 m for blasted materials  f) Benching hard rock upto an average 10cm depth  g) Drilling holes in hard granite 32mm diameter  h) Drilling holes in hard granite 40mm diameter  j) Drilling holes in hard granite 45mm diameter  RM 169.00  possible Cu.m 5.60  Sq.m 435.00  Aug. 122.00  RM 122.00  RM 144.70  Drilling holes in hard granite 45mm diameter  RM 169.00  j) Drilling holes in hard granite 50mm diameter  RM 203.00	c)	· · ·	Cu.m	230.00
thereof over the initial lift of 2 m for blasted materials  f) Benching hard rock upto an average 10cm depth Sq.m 435.00  g) Drilling holes in hard granite 32mm diameter RM 122.00  h) Drilling holes in hard granite 40mm diameter RM 144.70  i) Drilling holes in hard granite 45mm diameter RM 169.00  j) Drilling holes in hard granite 50mm diameter RM 203.00	d)	part thereof over the initial lead for blasted	Cu.m	5.40
depth  g) Drilling holes in hard granite 32mm diameter RM 122.00  h) Drilling holes in hard granite 40mm diameter RM 144.70  i) Drilling holes in hard granite 45mm diameter RM 169.00  j) Drilling holes in hard granite 50mm diameter RM 203.00	e)	thereof over the initial lift of 2 m for blasted	Cu.m	5.60
h) Drilling holes in hard granite 40mm diameter RM 144.70 i) Drilling holes in hard granite 45mm diameter RM 169.00 j) Drilling holes in hard granite 50mm diameter RM 203.00	f)		Sq.m	435.00
h) Drilling holes in hard granite 40mm diameter RM 144.70 i) Drilling holes in hard granite 45mm diameter RM 169.00 j) Drilling holes in hard granite 50mm diameter RM 203.00	g)	Drilling holes in hard granite 32mm diameter	RM	122.00
i) Drilling holes in hard granite 45mm diameter RM 169.00 j) Drilling holes in hard granite 50mm diameter RM 203.00	<b>-</b>	Drilling holes in hard granite 40mm diameter		
j) Drilling holes in hard granite 50mm diameter RM 203.00		9	<del> </del>	
2				
k) Drilling holes in hard granite 75mm diameter RM 231.00		<u> </u>	1	i

The following foot note is applicable for the classifications of soils come under "Quarrying and blasting" and "Earth Work"

Note: a) Standard specification No.20-A requires breaking clods, ramming and sectioning of spoil bank for which separate rate will not be paid.

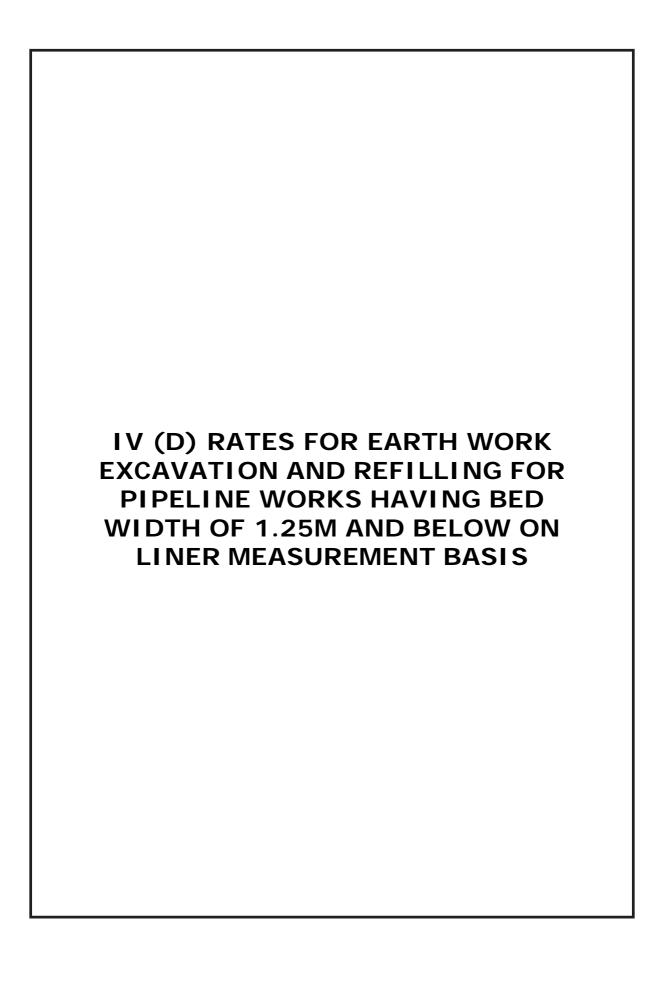
- b) Standard specification No.20-B does not require breaking clods, ramming and sectioning but requires neat banking in accordance with the standard specifications.
- c) Double the relevant rate for standard specification No.20-B will apply to excavation in all the soils and rock classification given above for foundation of buildings, piers, wings and returns of bridges, culverts, sluices, regulators and cross masonry works, retaining walls, toe walls, cut-off walls and body walls of anicuts weirs, retaining walls of cause ways, road dam, pits for avenue trees, and pits for poles and towards catch water pits and pipe layingtrenches for water supply and sewerage works.
- d) An extra 50 percent over the rates for ordinary excavation in all the soils and rock classification given above shall be allowed for the above said works only having bed width 1.25 m and below. The extra percentage is applicable any for depth up to 2.00m the depth being measured from the bottom of excavation.
- e) An extra 25 percent over the rates for ordinary excavation in all the soils and rock classification given shall be allowed for the above said works having bed width 1.25m to 2.00m. The extra percentage is applicable only for depth up to 2.0m the depth being measured from the bottom of excavation.
- These rates for earth work do not include baling charge. The baling charges are to be paid as per actual in case baling is done departmentally or at actual plus 10 percent extra in case baling is done by other agencies. However for estimate purpose baling charges are to be provided at 10 percent of the rates of respective items of excavation in all soils including medium rock and dense medium rock and at 5 percent of the rates for excavation in hard rock.
- g) Double the relevant rate for standard specification No.20B for excavation in all soils and rock classification given above shall be allowed for circular trenches for soil and moisture conservation having bed width of 0.25m and below with side slope of 1/2:1 and not less than 0.75 m in depth.
- h i) A deduction of 40 percent is to be made for the quantity of voids and stack measurement and payment is for the lesser of two viz. Solid measurement or stack measurements less 40 percent of stack measurement for voids.
- h ii) The rates for extra lead and lift are on the quantity as per the solid measurement or stack measurement less 40 percent for voids whichever is less. These rates are applicable for head load only.
- h iii) Payment for blasting the rock in solid shall be made for the lesser of the two quantities obtained by a) Measurement recorded by levels or measurement and b) by stack measurement less deduction for voids (This foot note is applicable for all items of rock measured in solid)



## EARTH WORK EXCAVATION FOR PIPE LAYING WORKS FOR WATER SUPPLY AND SEWERAGE WORKS

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees	
I	Earth work excavation and depositing on bank			
	with initial lead of 10 m and lift of 2 M in			
	narrow trenches having bed width 1.25m &			
	below for laying of pipes for water supply and			
	sewerage works in the following type of soil			
	strata as directed by Departmental officers			
а	Sand, silt or other loose soil, wet sand or silt			
	not under water light black cotton soil, sandy	One cubic	106.25	
	loam and ordinary soil.SS20B	metre		
b	Hard stiff clay, stiff black cotton, hard red			
	earth, shales, murram gravel, stoney earth and	One cubic		
	earth mixed with small size boulders and hard	metre	159.00	
	gravelly soil.SS20B			
II	Earth work excavation and depositing on bank			
	with initial lead of 10m and lift of 2.00m in			
	narrow trenches for laying of pipes for water			
	supply and sewerage works in the following			
	types of soil strata as directed by			
	departmental officers			
a	In Soft Disintegrated Rock, Laterite, soft rock	Cum	189.40	
b	or kankar, not requiring blasting.  In Medium rock and dense medium rock not			
l b		Cum	332.60	
С	requiring blasting.  In Medium rock and Dense medium rock requiring			
	blasting.	Cum	460.00	
d	In hard rock including blasting, removal and			
"	stacking.	Cum	900.00	
III a)	Earth work excavation for Pipe Laying work by			
۵/	removing dense medium rock using controlled			
	blasting method by drilling blast holes using			
	compressor and jack hammer including			
	dewatering wherever necessary, cost of			
	gelatin, electric detonator, licensed shot			
	fireman, labour for filling earth in gunny bags,	Cum	450.00	
	labour for excavation of earth, conveyance			
	of earth including cost of gunny bags, M.S.			
	Plates, barricading, putting up road diversion			
	boards and providing red light signal during			
	night, removal of debris etc., where open			
	blasting is prohibited and as directed by TWAD			
	Board Officers.			

Schedule Item No.	Description	Unit	Rates for 2018-19 in Rupees
b	Earth work excavation for Pipe Laying work by removing hard rock using controlled blasting method by drilling blast holes using compressor and jack hammer including stacking, dewatering wherever necessary, cost of gelatin, electric detonator, licensed shot fireman, labour for filling earth in gunny bags, labour for excavation of earth, conveyance of earth including cost of gunny bags, M.S Plates, barricading, putting up road diversion boards and providing red light signal during night, removal of debris etc., where open blasting is prohibited and as directed by TWAD Board Officers.	Cum	977.50



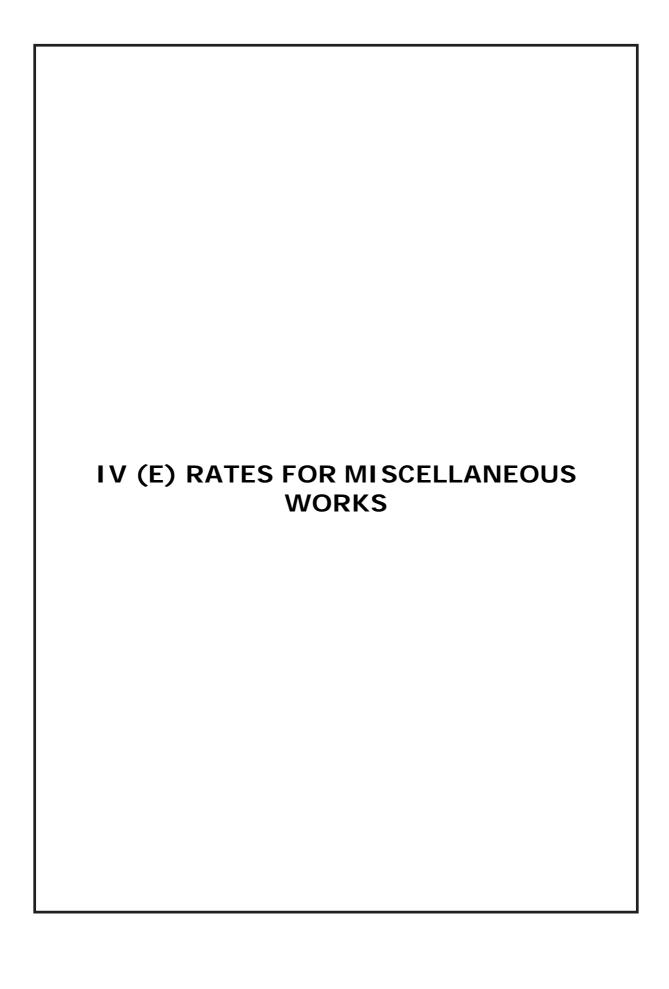
## THE RATES FOR EARTH WORK EXCAVATION AND REFILLING FOR PIPE LINE WORKS HAVING BED WIDTH OF 1.25M AND BELOW ON LINEAR MEASUREMENT BASIS

Туре	Pipe size in mm	Bed Width in 'm'	Depth in 'm'	Earth work qty. in cum/m	Outer dia of pipe in 'm'	Refilling Qty/ cum/m	Earth work rate for other than loose soil/m	Earth work rate for loose soil/m	Refilling rate/m
							Rs.	Rs.	Rs.
					Cost of EWE 159.00				
					Cost of refilling 22.20				
					Cost of loose soil 106.25				
CI/DI/	80	0.75	1.05	0.79	0.098	0.780	125.61	83.94	17.32
MS	100	0.75	1.05	0.79	0.118	0.777	125.61	83.94	17.25
	125	0.75	1.05	0.79	0.144	0.771	125.61	83.94	17.12
	150	0.75	1.05	0.79	0.170	0.765	125.61	83.94	16.98
	200	0.80	1.10	0.88	0.222	0.841	139.92	93.50	18.67
	250	0.80	1.20	0.96	0.274	0.901	152.64	102.00	20.00
	300	0.80	1.35	1.08	0.326	0.997	171.72	114.75	22.13
	350	0.90	1.45	1.31	0.378	1.193	208.29	139.19	26.48
	400	0.90	1.55	1.40	0.429	1.251	222.6	148.75	27.77
	450	1.00	1.70	1.70	0.480	1.519	270.3	180.63	33.72
	500	1.00	1.85	1.85	0.532	1.628	294.15	196.56	36.14
	525	1.00	1.85	1.85	0.532	1.628	294.15	196.56	36.14
AC CI 15	80	0.75	1.05	0.79	0.104	0.779	125.61	83.94	17.29
	100	0.75	1.05	0.79	0.124	0.775	125.61	83.94	17.21
	125	0.75	1.05	0.79	0.151	0.770	125.61	83.94	17.09
	150	0.75	1.05	0.79	0.178	0.763	125.61	83.94	16.94
	200	0.80	1.10	0.88	0.235	0.837	139.92	93.50	18.58
	250	0.80	1.20	0.96	0.286	0.896	152.64	102.00	19.89
	300	0.80	1.35	1.08	0.340	0.989	171.72	114.75	21.96
	350	0.90	1.45	1.31	0.396	1.162	208.29	139.19	25.80
	400	0.90	1.55	1.40	0.452	1.235	222.6	148.75	27.42
	450	1.00	1.70	1.70	0.502	1.502	270.3	180.63	33.34
	500	1.00	1.85	1.85	0.559	1.605	294.15	196.56	35.63
AC CI 10	80	0.75	1.05	0.79	0.104	0.779	125.61	83.94	17.29
	100	0.75	1.05	0.79	0.124	0.775	125.61	83.94	17.21
	125	0.75	1.05	0.79	0.149	0.770	125.61	83.94	17.09

Туре	Pipe size in mm	Bed Width in 'm'	Depth in 'm'	Earth work qty. in cum/m	Outer dia of pipe in 'm'	Refilling Qty/ cum/m	Earth work rate for other than loose soil/m	Earth work rate for loose soil/m	Refilling rate/m
							Rs.	Rs.	Rs.
	150	0.75	1.05	0.79	0.175	0.763	125.61	83.94	16.94
	200	0.80	1.10	0.88	0.229	0.839	139.92	93.50	18.63
	250	0.80	1.20	0.96	0.281	0.898	152.64	102.00	19.94
	300	0.80	1.35	1.08	0.333	0.993	171.72	114.75	22.04
	350	0.90	1.45	1.31	0.389	1.186	208.29	139.19	26.33
	400	0.90	1.55	1.40	0.436	1.246	222.6	148.75	27.66
	450	1.00	1.70	1.70	0.486	1.515	270.3	180.63	33.63
	500	1.00	1.85	1.85	0.541	1.620	294.15	196.56	35.96
PVC/ HDPE/									
GRP	40	0.60	1.05	0.63	0.040	0.629	100.17	66.94	13.96
	50	0.60	1.05	0.63	0.050	0.628	100.17	66.94	13.94
	63	0.60	1.05	0.63	0.063	0.627	100.17	66.94	13.92
	75	0.60	1.05	0.63	0.075	0.626	100.17	66.94	13.90
	90	0.60	1.05	0.63	0.090	0.624	100.17	66.94	13.85
	110	0.60	1.05	0.63	0.110	0.621	100.17	66.94	13.79
	125	0.60	1.05	0.63	0.125	0.618	100.17	66.94	13.72
	140	0.60	1.05	0.63	0.140	0.615	100.17	66.94	13.65
	160	0.60	1.05	0.63	0.160	0.610	100.17	66.94	13.54
	180	0.75	1.05	0.79	0.180	0.760	125.61	83.94	16.87
	200	0.80	1.10	0.88	0.200	0.850	139.92	93.50	18.87
PSC/									
BWSC	350	0.90	1.45	1.31	0.464	1.136	208.29	139.19	25.22
	400	0.90	1.55	1.40	0.514	1.188	222.6	148.75	26.37
	450	1.00	1.70	1.70	0.564	1.450	270.3	180.63	32.19
	500	1.00	1.85	1.85	0.614	1.554	294.15	196.56	34.50
Gl	15	0.75	1.05	0.79	0.020	0.787	125.61	83.94	17.47
	20	0.75	1.05	0.79	0.030	0.787	125.61	83.94	17.47
	25	0.75	1.05	0.79	0.030	0.787	125.61	83.94	17.47
	32	0.75	1.05	0.79	0.040	0.786	125.61	83.94	17.45

Туре	Pipe size in mm	Bed Width in 'm'	Depth in 'm'	Earth work qty. in cum/m	Outer dia of pipe in 'm'	Refilling Qty/ cum/m	Earth work rate for other than loose	Earth work rate for loose soil/m	Refilling rate/m
							soil/m Rs.	Rs.	Rs.
	40	0.75	1.05	0.79	0.050	0.786	125.61	83.94	17.45
	50	0.75	1.05	0.79	0.060	0.786	125.61	83.94	17.45
	65	0.75	1.05	0.79	0.070	0.784	125.61	83.94	17.40
	80	0.75	1.05	0.79	0.090	0.781	125.61	83.94	17.34
	100	0.75	1.05	0.79	0.110	0.778	125.61	83.94	17.27
	125	0.75	1.05	0.79	0.140	0.772	125.61	83.94	17.14
	150	0.75	1.05	0.79	0.160	0.767	125.61	83.94	17.03

- Note: (1) Earth work excavation for loose soil SS-20B and ordinary soil SS-20B having the bed width of
  - a) 1.25m and below and for a depth of beyond 2.00m and
  - b) 1.25m and above and for a depth of beyond 2.00m may be worked out separately with extra cost for additional lift and adopt accordingly.
  - (2) Earth excavation in SDR, DMR,HR etc., the linear measurement rate may be worked out separately and to be approved by the SE concerned after verification of soil classifications by putting proper trial pits at closer intervals".( B.P.Ms.No.82 / COM Wing / dt.22.8.2008).



## **MISCELLANEOUS**

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
	PLUMBING		
1. A	Laying of G.I. Pipes and specials to proper		
	line and level including jointing but excluding		
	cost of pipes and jointing materials for		
	plumbing works for providing water supply		
	and sanitary works in the premises of the		
	building		
	6 mm to 32 mm dia	One metre	13.16
	40 mm to 50 mm dia	One metre	13.16
	65 mm to 150 mm dia	One metre	17.62
b	Bore cap using M.S. Flat of size 1 cm x 3 mm		
	and M.S. sheet on top with bolting		
	arrangements for securing the cap in position		
	(Bore caps with M.S. Couplings need not be		
	made)		
	5" Casing Pipes	Each	367.68
	6" Casing Pipes	Each	389.65
	8" Casing Pipes	Each	428.31
2	Labour for cutting open road for laying		
	water mains or sewer.		
a.	B.T. Roads (or) Maccadam road	One cu.m	539.85
b.	Concrete Roads	One cu.m	756.07
3	Labour for drilling, cutting, Threading and		
	Fixing Ferrules in distribution pipes.		
	10 mm dia	Each	56.40
	15 mm dia	Each	70.70
	20mm dia	Each	88.77
	25 mm dia	Each	105.02
4	Labour charges for Painting TWAD Board		
	Emblem in accordance with the size and		
	specifications as approved by the Board on		
	the Service Reservoirs including cost of all	Sqm	1982.78
	consumables, one coat of base paint,		
	scaffolding charges including painting NRDWP		
	Logo on the Service Reservoirs.		
5	Drilling holes in C.I/G.I. Dummy Flanges.		
	12 mm dia	Each	19.79
	15 mm dia	Each	39.81

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
	20 mm dia	Each	57.66
	22 mm dia	Each	77.68
	25 mm dia	Each	97.58
6	Labour for refilling with sand the socket hollows of pipes including conveyance and stacking	One cu.m	19.79
	NOTE: 1) For depth between	Percentage excess allowed over basic rate	
	2 m to 4 m	15%	
	4 m to 6 m	30%	
7	Lifting and positioning of C.I / G.I Pipes in vertical direction for service reservoir pipe connection		
	0 to 2 m	QtI	167.71
	2 to 4 m	QtI	252.60
	4 to 6 m	QtI	396.17
	6 m to 8 m	QtI	547.98
	8 m to 10 m	QtI	699.67
	10 m to 12 m	QtI	849.42
	12 m to 14 m	QtI	1005.00
	14 m to 16 m	QtI	1144.80
	16 m to 18 m	QtI	1296.27
	18 m to 20 m	QtI	1447.85
	20 m to 22 m	QtI	1595.77
	22 m to 24 m	QtI	1745.17
8.	DRILLING WORKS Using Hand Bore set		
а	Drilling of borewells of size 4" to 5" dia. in Sedimentary formation using hand boresets including insertion of casing pipes and removal of casing pipes etc., including supplying and packing of pebbles and conveyance of hand Boreset including loading and unloading	One metre	632.75
b	Drilling of borewells of size 6" to 8" dia. in sedimentary formation using hand boreset including insertion of casing pipe etc., and supplying and packing of pebbles (Conveyance of hand bore set including loading and unloading to be done by the contractor)	One metre	744.17

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
С	Using Hand Bore set		
	(For Investigation purpose)		
I	Drilling of borewells of size 4" to 5" dia. in		
	sedimentary formation using hand boresets		
	including insertion of casing pipes and removal	One metre	471.10
	of casing pipes etc., including collection of		
	samples as directed by the TWAD Board		
	Officers.		
ii	Drilling of borewells of size 6" to 8" dia. in		
	sedimentary formation using hand boresets		
	including insertion of casing pipes and removal	One metre	551.98
	of casing pipes etc., including collection of		
	samples as directed by the TWAD		
	Board Officers.		
	Using Calyx Drill		
d	Drilling of 4 1/2" diameter borewell by using		
	Calyx Drill including transporting charges and		
	insertion of casing pipes (excluding cost of		
	casing pipe)		
i.	For Hilly terrain area	One metre	2368.31
ii.	For Plain area	One metre	1956.81
е	Drilling 4 1/2" dia meter bores by using		00/ /5
	In-Well rig in Hilly areas	One metre	996.65
f	Reaming from 6" Pilot bore to 12" size bore		0/0/5
	as directed by the TWAD Board Officers	One metre	260.15
g	Labour charges for inserting casing pipes		
	assembly (With slot or without slot) in the		
	drilled hole including welding the joint etc.,	One metre	249.16
	complete and supplying and packing the		
	annular space with pebbles of size and quality		
	as approved by the Executive Engineer		
9 a	Driving sheet piles for one metre length of		
	gallery each side in sandy soil		
i.	First depth of 2 m	One metre	491.35
ii	Second depth of 2 m	One metre	750.24
iii	Third depth of 2 m	One metre	1409.06

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
b	Removing sheet piles from one metre length		
	of gallery on each side including stacking		
	the sheet piles properly		
i.	First depth of 2 m	One metre	76.42
ii	Second depth of 2m	One metre	117.03
iii	Third depth of 2 m	One metre	169.88
10	Drilling of borwell inside well 115mm dia.		
	a) Vertical	One metre	543.97
	b) Horizontal	One metre	596.60
11	Drilling of borewell inside well 150mm dia.		
	a) Vertical	One metre	681.02
	b)Horizontal	One metre	719.80
12	Drilling of Borewells anywhere in Tamilnadu		
	including transportation from one place to		
	another within Tamilnadu in alluvial soil		
	sedimentary strata of clay and sand stone		
	shale pebbles boulders etc. By first taking	P.S. to	
	a pilot bore of 140 mm/150mm dia and then	M.D.S.S.	
	enlarging to required dia direct or reverse	Special	
	rotary mud circulation method using rotary	Specifications	
	rigs, fuel, labour and drilling bentonite and		
	water required for drilling at site ( Site will		
	be shown by the TWAD Board Officers)		
	including construction of mud pit.		
a.	Drilling of 140/150 mm pilot bore		
i.	Upto 60 m Depth ending below ground level	One metre	1137.59
ii	From 60 m upto 90 m Depth ending from		
	ground level	One metre	1231.97
iii	From 90 m upto 120 m Depth ending from	One metre	1306.22
	ground level	0.10.11.01.0	
iv	From 120 m upto 150 m Depth ending from	One metre	1375.43
	ground level	21131113113	
V	From 150 m upto 180 m Depth ending from	One metre	1396.82
•	ground level		
Vİ	From 180 m upto 210 m Depth ending from	One metre	1442.13
!!	ground level		
vii	From 210 m upto 240 m Depth ending from	One metre	1483.65
	ground level		

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
viii	From 240 m upto 270 m Depth ending from ground level	One metre	1535.25
ix	From 270 m upto 300 m Depth ending from ground level	One metre	1569.22
Х	From 300 m upto 330 m Depth ending from ground level	One metre	1606.98
xi	From 330 m upto 360 m Depth ending from ground level	One metre	1640.95
12 b	Reaming 140/150 mm dia pilot bore to 300mm dia bore as directed by the TWAD Board Officer.		
i.	Upto 60 m depth ending below ground level	One metre	285.66
ii	From 60 m depth and upto 90 mt depth ending below ground level	One metre	303.27
iii	From 90 m upto 120 mt depth ending below ground level	One metre	323.41
iv	From 120 m upto 150 mt depth ending below ground level	One metre	328.44
V	From 150 m upto 180 mt depth ending below ground level	One metre	343.54
vi	From 180 m upto 210 mt depth ending below ground level	One metre	361.16
vii	From 210 m upto 240 mt depth ending below ground level	One metre	377.52
viii	From 240 m upto 270 mt depth ending below ground level	One metre	391.36
ix	From 270 m upto 300 mt depth ending below ground level	One metre	412.76
Х	From 300 m upto 330 mt depth ending below ground level	One metre	429.11
xi	From 330 m upto 360 mt depth ending below ground level	One metre	444.22
12 c	Reaming 200 mm dia pilot bore to 350mm dia bore as directed by the TWAD Board Officer.		
i.	Upto 60 m depth ending below ground level	One metre	320.89
ii	From 60 m depth and upto 90 mt depth ending below ground level	One metre	339.77
iii	From 90 m upto 120 m depth ending below ground level	One metre	361.16

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
iv	From 120 m upto 150 m depth ending below		
	ground level	One metre	372.49
V	From 150 m upto 180 m depth ending below		
	ground level	One metre	385.07
vi	From 180 m upto 210 m depth ending below		
	ground level	One metre	414.01
vii	From 210 m upto 240 m depth ending below		
	ground level	One metre	473.16
viii	From 240 m upto 270 m depth ending below		
	ground level	One metre	485.74
ix	From 270 m upto 300 m depth ending below		
	ground level	One metre	497.07
Х	From 300 m upto 330 m depth ending below		
	ground level	One metre	513.43
хi	From 330 m upto 360 m depth ending below		
	ground level	One metre	526.01
12 d	Reaming 300 mm dia pilot bore to 400mm/		
	450mm dia bore as directed by the TWAD		
	Board Officer.		
i.	Upto 60 m depth ending below ground level	One metre	440.44
ii	From 60 m depth and upto 90 m depth		
	ending below ground level	One metre	493.29
iii	From 90 m upto 120 m depth ending below		
	ground level	One metre	526.01
iv	From 120 m upto 150 m depth ending below		
	ground level	One metre	557.47
V	From 150 m upto 180 m depth ending below		
	ground level	One metre	580.12
Vİ	From 180 m upto 210 m depth ending below		
	ground level	One metre	596.48
∨ii	From 210 m upto 240 m depth ending below		
	ground level	One metre	610.32
∨iii	From 240 m upto 270 m depth ending below		
	ground level	One metre	639.27
ix	From 270 m upto 300 m depth ending below		
	ground level	One metre	663.18
Х	From 300 m upto 330 m depth ending below		
	ground level	One metre	695.90
хi	From 330 m upto 360 m depth ending below		
	ground level	One metre	719.80

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
12 e	Labour Charges for inserting 150 mm/200mm/		
	250 mm dia (M.S. Casing pipes assembly with		
	slots or with out slots) in the drilled hole		
	including welding the joints etc., complete		
	and supplying and packing the annular space		
	with pebbles of size and quality as approved		
	by the Executive Engineers of TWAD Board.		
i.	150 mm dia Casing Pipes assembly	One metre	256.48
ii	200 mm dia Casing Pipes assembly	One metre	256.48
iii	250 mm dia Casing Pipes assembly	One metre	260.83
13 a	Labour Charges for inserting PVC Casing pipes		
	assembly (with slots or without slots) in the		
	drilled hole including jointing the pipes with		
	PVC Couplers with Cement paste etc.,		
	complete, supply and packing the annular		
	space with pebbles of size and quality as		
	approved by the Executive Engineers of		
	TWAD Board		
i.	150 mm dia Casing Pipes assembly	One metre	248.59
ii	200 mm dia Casing Pipes assembly	One metre	256.48
iii	250 mm dia Casing Pipes assembly	One metre	256.48
13 b	Charges for developing the Borewell with air		
	compressor of 600 CFM capacity (Minimum		
	8 Hours) including transportation, labour and	One hour	1676.53
	fuel charges for compressor as directed by		
	TWAD Officers and conducting yield test by		
	'V' notch method.		
	Note: I) 150 mm dia bore, reaming should		
	be done upto 300mm dia.		
	II) 200 mm dia bore, reaming should be done		
	upto 300mm dia and thereafter 400,450 etc.		

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
14	Drilling of borewell anywhere in Tamilnadu		
	including transportation from one place to		
	another place within Tamilnadu in alluvial soil		
	or sedimentary strata of clay and sand or		
	sand, stone, shale, pebbles, boulders etc.,		
	by first taking a pilot bore of 140 mm/150mm		
	dia and then enlarging to required dia by		
	direct or reverse rotatry mud and circulation		
	method using Contractor's rig, fuel, labour,		
	drilling, betonite mud and water required for		
	drilling at the site shown by the TWAD		
	Officers including construction of mud pit		
	(only Calyx drills are to be used).		
a.	Drilling 140 / 150 mm dia Pilot Bore upto 60m	0	
	depth ending below ground level.	One metre	829.29
b.	Reaming from 140/150 mm dia pilot bore to		
	300 mm dia bore as directed by the TWAD	One metre	234.06
	Board Officers upto 60 m Depth ending from		
	ground level		
С.	Labour charges for inserting 150 mm dia M.S.		
	Casing pipes assembly (With slots or without		
	slots) in the drilled hole including welding the	One metre	210.38
	joints and packing annular space with pebbles		
	of size and quality as approved by the		
	Executive Engineer / TWAD Board		
d.	Labour Charges for inserting PVC casing pipes		
	assembly (with slots or without slots) in the		
	drilled hole including jointing the pipes with		
	PVC couplers with cement paste etc.		
	complete		
i.	140 mm OD PVC Casing Pipes Assembly	One metre	179.95
ii	165 mm/168 mm dia PVC Casing pipes Assembly	One metre	210.38
e.	Charges for developing the borewell with air		
	compressor of 300 CFM capacity (Minimum		
	8 Hours) including transportation labour and	One hour	1303.93
	fuel charges for compressor as directed by		
	TWAD Board Officers and conducting yield		
	test by 'V' notch method.		

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
f.	Drilling of 12" dia vertical borewell so as to have a finished size of 6" dia borewell in boulder area to any required depth as decided by the TWAD Board Officers including Transportation from one place to another place with in Tamilnadu State by direct or reverse rotary mud circulation method using Contractor's rig tools, fuel, labourers, bentonite mud and water required for drilling at the site shown by the TWAD Officers including construction of mud pit etc. using only calyx rigs.	One metre	1595.99
15 a.	Conveyance of Hand Pumps and its accessories from divisional stores to site of works		
i.	Conveyance upto 10 Kms	Each	478.08
ii	Conveyance 10 to 20 Kms	Each	600.03
ii	Conveyance 20 to 40 Kms	Each	731.24
iv	Conveyance above 40 Kms	Each	847.48
	Note:  i) Conveyance of Filter Point, Handpump with GI Pipes and its accessories from divisional stores to site of works. 50% of the rate of conveyance of hand pumps, with its accessories is applicable for this item for the respective leads as indicated above  ii) If the Mark II hand pump is conveyed in cart track even for part distance 20 % extra over the above rate shall be adopted.		
b i.	Erection of deep well hand pumps upto 40 m	Each	847.25
ii	Above 40 m	Each	966.57
C.	Erection of shallow well hand pumps	Each	373.97
d.	Erection Extra deep well hand pumps	Each	1094.01
e.	Removal of deep well hand pumps from borewell		
i.	Up to 40 m	Each	847.25
ii	Above 40 m	Each	1067.70

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
f)	Attending repairs to deep well handpumps		
	for borewells inclusive of removal of G.I.		
	Pipes, Plunger rods, Cylinder and re-erection		
	of hand pumps inclusive of lowering the GI		
	Pipes Plunger rods cylinder, jointing etc.		
i.	Upto 30 M	Each	899.76
ii)	Above 30 M	Each	1052.02
16 a	Erection of filter point with G.I. Pipes of		
	32 mm to 65 mm dia.	Each	244.59
b	Removing the chocked filter point with G.I.		
	Pipes of 32 mm to 65 mm dia and re-erecting		
	in another place within 1.00 KM radius after	Each	406.46
	cleaning the filter points G.I. Pipes etc.,		
	Complete upto 8 m depth		
17a	ERECTION OF POWER PUMPSET IN		
	BORE/OPENWELL		
	Labour Charges for erection of Horizontal shaft,		
	centrifugal pumpset (Coupled/Monoblock) in		
	bore well/Open well including fixing of suction		
	pipe and foot valve upto a maximum depth		
	of 7 metres and delivery pipes to the required		
	length with valves, pressure gauges upto the		
	exterior wall of pump room and erection of		
	panel board consisting of TPIC switches		
	starter, Voltmeter, Ammeter, Capacitor single		
	phasing preventor and laying and jointing the		
	cables and twin earthing as per IE rules		
	including providing bed blocks etc., complete		
	and operating the pumps and trial run for 10		
	days including signing of completion of		
	reports as required by EB authorities.		
i.	Upto 3 HP	Each	5474.04
ii	Above 3 HP upto 7.5 HP	Each	7045.78
iii	Above 7.5 HP to 20 HP	Each	8256.36

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
17 b	ERECTION OF POWER PUMPS IN BORE WELL		
	Labour charges for erection of twin packer duplex type jet pumps in borewells upto 150 mm dia including fixing of Suction pipe regulating valves with jet assembly upto a maximum depth of 30 m and delivery pipe valves pressure gauges upto the exterior wall of pump room and erection of panel board consisting of TPICN switches starter, Voltmeter, Ammeter, three indicator lamps capacitor and laying and jointing the cables and twin earthing as per IE rules etc., complete and testing the pumps and trail run for 10 days including signing of completion of reports as required by EB authorities and finishing the pipe holes including the foundation bolts, nuts and		
	earth pits.	E l.	7000 (0
i.	Upto 3 HP	Each	7322.63
ii	Above 3 HP upto 7.5 HP  Beyond 7.5 HP upto 20 HP	Each Each	8555.86 9782.80
	Note: If depth of erection exceeds beyond 30 m 10% increase over the basic rate is allowed	Lacii	7702.00
17 c	Labour charges for the erection of submersible pumpset in borewell/openwell including fixing and jointing submersible cable with proper clamps upto the starter to required depth and also fixing of riser pipes to the required depth valves erection clamps, pressure gauges upto the exterior wall of pump room and erection of panel board consisting of TPICN switches starter, Voltmeter, Ammeter, three pilot (indicating) lamps capacitor single phasing preventor, water level guard and laying and jointing the cables and twin earthing as per IE rules etc., complete and testing the pumpset and trail run for 10 days.		
i.	Upto 5 HP	Each	7443.44
ii.	Above 5.00 HP to 10.00 HP	Each	8529.44

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
iii)	Above 10.00 HP to 20.00 HP	Each	9463.17
17 d	Conveyance of power pumpset (centrifugal, jet and submersible) and its accessories from divisional stores to site of works.		
	Conveyance upto 10 Kms	Each	1040.70
	Conveyance 10 to 20 Kms	Each	1143.89
	Conveyance 20 to 40 Kms	Each	1693.23
	Conveyance 40 to 60 Kms	Each	2064.58
	Conveyance 60 to 80 Kms	Each	2709.68
	Conveyance above 80 Kms	Each	3107.33
	Note: For item 17 (a), (b) and (c) i. Removal of centrifugal pumpset/ jet pumps/ submersible pumpsets and its accessories from borewell/ open well for attending repairs 50% of the rates mentioned under item 17 (a), (b) and (c) may be allowed for the respective Horse power.		
	ii Re-erection of centrifugal pumpsets, jet pumpsets and its accessories into the borewell/ openwell after attending the repairs 50% of the rate mentioned under item 17 (a), (b) and (c) may be allowed for respective Horse power.		
18	Hire charges :		
a	Sheet piles (Larsen)	Per Pile/ Per day	4.23
b	Sheet piles (For dingham)	Per Pile/ Per day	6.52
С	Compartment sheet with Grills (3' - 0" Wide)	Per sheet/ Per day	6.52
d	Rate for flushing of borewell of 6" dia requiring less than 4 hours operation using drill rods/ hose with required size of pipes for various capacity compressor including transportation, labour, and fuel charges for compressors as directed by the TWAD Officer and conducting yield test by 'V' notch method if required.		
i.	600 Cfm ( 100 /150 PSI)	1 hour (or) Part there of	1676.30
ii)	300/250 Cfm (100 PSI)	1 hour (or) Part there of	1303.93

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
iii)	125 Cfm (100 PSI)	1 hour (or)	
		Part there of	1194.56
	Note: Minimum charges for 8 (eight) hours		
	will be levied if the air compressor issued for		
	other departmental works or if the air		
	compressor is hired to other departments.	Dor dou/	
е	Helmet	Per day/ 8 hours	6.37
f	Hand test pump	Per day/	
		8 hours	60.60
g	Pile hammer	Per day/	6.37
		8 hours	0.37
h	Concrete mixer 5 Cft. With driver (Excluding	Per day/	572.11
	cost of fuel)	8 hours	
i.	Concrete mixer 7 Cft. With driver(Excluding cost of fuel)	Per day/ 8 hours	863.38
j	Hand operated winch	Per day/	
,	·	8 hours	56.35
k	Pile cap	Per day/	15.00
		8 hours	15.09
I	Dewatering using 3hp to 70hp diesel engine		
	pumpset including Hire charges, cost of Diesel,		
	Engine oil, pump operator, labour charges,		
	conveyance of pumpset and fuel to site and		
	back, loading, unloading and any other		
	incidental charges etc., complete.		
i)	Hire charges for Diesel Pump set For 3 HP	Per Hour	170.71
ii)	Hire charges for Diesel Pump set For 5 HP	Per Hour	223.68
iii)	Hire charges for Diesel Pump set For 7.5 HP	Per Hour	319.89
iv)	Hire charges for Diesel Pump set For 10 HP	Per Hour	421.11
v)	Hire charges for Diesel Pump set For 12.5HP	Per Hour	487.32
vi)	Hire charges for Diesel Pump set For 15 HP	Per Hour	548.54
vii)	Hire charges for Diesel Pump set For 20 HP	Per Hour	670.96
viii)	Hire charges for Diesel Pump set For 40 HP	Per Hour	1125.68
ix)	Hire charges for Diesel Pump set For 50 HP	Per Hour	1335.54
Х	Hire charges for Diesel Pump set For 60 HP	Per Hour	1580.39
Хİ	Hire charges for Diesel Pump set For 70 HP	Per Hour	1835.25

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
19 a	Labour for tying barbed wire fencing horizontally through the holes in RCC posts with required tension.	One metre	6.52
b	Labour for tying barbed wire fencing vertically with required tension	One metre	6.52
20	Labour charges for putting bore holes of size 3" to 4" in river bed in sandy and other loose soils using hand boring sets including the cost of hire charges, conveyance charges of hand boring sets, collection of soil sample at frequent intervals and as directed by TWAD Board Officers.	One metre	341.60
21	Desilting light or sandysoil or silt from infiltration wells below water level including the charges for special T&P and air compressor etc. complete.	One cu.m.	1358.73
22	Surveying and levelling for the proposed alignment of pipe line by Total station method by engaging qualified Engineers with minimum qualification of B.E.(Civil), Technical Asistant Grade I & II and Mazdoor category I, using the contractor own survey instruments, Special tools and plants vehicle hire charges, transportation, initial incidental charges such as jungle clearance etc. Preparation of Tree map and alignment plan, duly incorporating salient details, such as topographical features, permanent land marks, bench marks etc. at appropriate points, alignment plans and longitudinal section plan at 30 m intervals in addition to other salient locations such as branches, bends, culverts, river crossing etc, with all field particulars in Auto Cad and submission of plan 3 set, along with LF books with making all entries with certification by above qualified Engineers with soft copy and marking TBM stones at required places with bench mark registers soft copies 3 set and hard copy 5 set etc., complete as directed by TWAD Board officers.	1KM	3334.76

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
23	Dismantling		
	Dismantling, clearing away and carefully		
	stacking materials useful for reuse for any		
	thickness of walls		
i	Brick / stone in clay walls under 3 m high	cu.m	39.00
ii	Brick / stone in clay walls, add for every additional		
	3 m or part there of over the initial height of 3 m	cu.m	13.00
iii	Mud / sun dried brick walls under 3 m high	cu.m	26.10
iv	Mud / sun dried brick walls,add for every additional		
	3 m or part thereof over the initial height of 3 m	cu.m	7.50
V	Brick / stone masonry in lime mortar walls under		
	3 m high	cu.m	119.50
Vİ	Brick / stone masonry in lime mortar walls, add		
	for every additional 3 m or part thereof over		
	the initial height of 3 m	cu.m	13.30
vii	Brick / stone masonry in Cement mortar walls		
	under 3 m high	cu.m	146.80
Viii	Brick / stone masonry in Cement mortar walls,		
	add for every additional 3 m or part thereof		
	over the initial height of 3 metre	cu.m	15.50
ix	Terracing work in roof or floor	sqm	39.60
Х	Flag stone in roof or floor including lifting	sqm	20.90
Хİ	Cut stone slab over culverts upto 3.3.m height	·	
	below ground level	cu.m	609.00
Хİİ	Cut stone slab over culverts over 3.3.m height		
	below ground level	cu.m	635.00
xiii	Removal of cut stone slabs / RCC Cover slabs	sqm	266.00
xiv	Refixing cut stone slabs/ RCC Cover slab	sqm	291.00
XV	Pantile or Mangalore tiled roof without roof timbers	sqm	10.40
xvi	Flat and Pan tiles or Mangalore tiles over flat		
	tiles, without roof timbers	sqm	14.50
xvii	Asbestos cement sheets roofing without roof timbers	sqm	9.30
xviii	Corrugated iron sheet roofing over pan tiles,		
	without roof timbers	sqm	15.50
xix	Old Thatched roof, including tying materials		
	into small bundles for reuse	sqm	4.60
XX	Wrought and put up framed timbers in roofs/floors	cu.m	383.00
xxi	Doors and windows including removal of frames,		
	hinges and fastenings	sqm	79.30
xxii	Drystone apron or revetment, stacking within		
	40 m lead	cu.m	67.90

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
xxiii	Grouted stones apron or revetment, stacking		
	within 40 m lead	cu.m	79.30
xxiv	Dry stone masonry walls	cu.m	57.90
XXV	*Dismantling lime concrete	cu.m	184.00
xxvi	*Dismantling plain cement concrete	cu.m	252.00
xxvii	*Dismantling reinforced cement concrete	cu.m	3820.00
	Note* 1) The rate for dismantling lime concrete, cement concrete and R.C. concrete are exclusive of bailing charges. The rate is same in all floors.2) For dismantling below ground level 25% extra over the basic rates (i.e. the rates already available in the schedule of rate) for dismantling is allowed.		
xxviii	Chipping of concrete and roughening the surface	sqm	20.90
xxix	Pressed tiles & weathering course	sqm	23.80
XXX	One course of pressed tile roof finish in Cement Mortar	sqm	13.30
xxxi	One course of terrace bricks roof finish in Cement Mortar	sqm	15.50
xxxii	Two course of flat tiles roof finish in Cement Mortar	sqm	15.50
xxxiii	Mosaic in situ finish in cement mortar in flooring and in wall surface	sqm	32.70
xxxiv	Floor finish and dadooing walls in Cement  Mortar with mosaic tiles/ glazed tiles/ cuddapah slabs.	sqm	31.50
XXXV	Clearing the site	•	
а	Clearing Heavy jungle	sqm	4.60
b	Clearing Light jungle	sqm	3.45
С	Clearing Scrub jungle	sqm	3.15
d	Uprooting and removing large palmyrah/ coconut stumps	each	91.70
е	Uprooting and removing small palmyrah/ coconut stumps	each	65.60
f	Removing weeds in channel and drain	sqm	1.25
g	Cleaning juliflora jungle with uprooting	sqm	5.20
h	Cleaning juliflora jungle without uprooting	sqm	3.95
	Note: Definition of large and small stumps: The Diameter of Stumps shall be 1/3 of the circumferance at a point 0.6 m above the highest ground level at the stump or the circumferance near the top of the stump if		

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
	the stump is less than 0.60 m in height (The		
	measurement for circumferance and		
	determination of the diameter will be to the		
	nearest full centimetre). Only stumps with		
	Circumferance of 30 cm and more will be		
	measured for payment. The SI. No d, is for		
	Stumps of Diametre above 30 cm and SI. No.		
0.4	e is for stumps of diametre 15 to 30 cm.		
24.	OPEN WELL EXCAVATION		
1	Earth work open well excavation, complying		
	with relevant clauses of T.N.D.S.S. Well sinking		
	and with lead up to 10 metres in sand, silt or		
	other loose soil, Wet sand or silt not under water, light black cotton soil, sandy loam and		
	ordinary soil - First depth of 2 metres.	Cu.m	42.50
2	Earth work open well excavation, complying	Cu.III	42.50
2	with relevant clauses of T.N.D.S.S. Well sinking		
	and with lead upto 10 metres in Hard stiff		
	clay, stiff black cotton soil, hard red earth,		
	shales, murrams gravel, stoney earth and earth		
	mixed with small size boulders and hard gravelly		
	soil - First depth of 2 metres	Cu.m	63.40
3	Earth work open well excavation, complying		
	with relevant clauses of T.N.D.S.S. Well sinking		
	and with lead up to 10 metres in soft		
	disintegrated rock, laterite, soft rock or kankar,		
	not requiring blasting - First depth of 2 metres	Cu.m	97.70
4	Open well excavation, complying with relevant		
	clauses of T.N.D.S.S. Well sinking and with		
	lead up to 10m in Medium rock and Dense		
	medium rock not requiring blasting. First depth		
	of 2 metres	Cu.m	157.20
5	Open well excavation complying with relevant		
	clauses of T.N.D.S.S. well sinking and with lead		
	up to 10m in Medium rock and Dense medium	0	00/ 10
,	rock requiring blasting. First depth of 2 metres	Cu.m	236.40
6	Open well excavation complying with relevant		
	clauses of T.N.D.S.S. well sinking and with lead		
	up to 10m in hard granite measured in solid		
	including blasting and stacking - First depth of 2 metres	Cu.m	461.00
7	Sinking well in loose soils, light black cotton	Cu.III	401.00
<b>,</b>	soil, sandy loam and ordinary soil under water		
	including bailing or pumping charges if necessary		
	etc., complete - First depth of 2 metres	Cu.m	65.90
	oto, complete That depth of 2 metres	Ju.111	00.70

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
8	Sinking well in sand, including bailing or pumping charges if necessary etc. complete - First		
	depth of 2 metres	Cu.m	92.40
9	Sinking well in hard stiff clay, light black cotton soil, hard red earth, shales, murram, gravel, stoney earth and earth mixed with small size boulders and hard gravelly soil including bailing or pumping charges if necessary etc. complete	0	02.40
	- First depth of 2 metres	Cu.m	92.40

## Note: Open well Excavation

- a) Up to 2m diameter of wells, 10 percent excess will be allowed over the basic rates for open well excavation.
- b) The rates do not include baling charges. If the dewatering is to be done departmentally, 10 percent of cost of excavation shall be allowed for dewatering for estimate purposes. Actual or 10 percent whichever is less to be allowed for dewatering charges. For any expenditure above this percentage prior approval of the competent authority should be obtained.
- c) Stage depth rates for well excavation" The stage depth for adopting the rates from the schedule of rates should be reckoned from ground level only irrespective of the fact, whether there is parapet wall or not.
- d) For open well excavation for rates up to 12m depth, the progression would be x, 2x, 3x, 4x, 5x, and 6x and rate beyond 12 metre depth, the progression should be 8x, 10x, 12x, 14x and 16x and so on.

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
25.	RATE FOR EARTH WORK BY DEPLOYING		
	MACHINERIES		
1	Earth work in all soils except hard rock requiring blasting and conveying for formation of bund with lead of 0 to 100 metre deploying earth moving machineries and tippers including benching, formation of bunds, breaking clods, sectioning etc., complete.	Cu.m	45.55
1.a.	Earth work in all soils except hard rock requiring blasting and conveying for formation of bund with an extra lead of every 100 metre or part thereof deploying earth moving machineries and tippers including benching, formation of bunds, breaking clods, sectioning etc., complete.	Cu.m	3.60
2	Earth work deploying earth moving machineries for desilting channel and forming bund on either side and depositing the earth on banks including jungle clearance etc., complete.		
a.	Having width upto 3 m	Cu.m	26.85
b.	Having width of 3 m – 10 m	Cu.m	32.95
3	Earth work excavation deploying earth moving machineries for desilting channel having a width of more than 10 m and forming bund on either side and depositing the earth on banks including jungle clearance etc., complete.	Cu.m	38.30
26	Lift charges - concrete - Brick or stone		
	Masonry above or below ground level  Note: The rate for lime concrete, cement concrete, reinforced cement concrete, brick work and stone masonry worked out as per Standard Data will apply to basement and foundation up to a depth of 1.50 m below ground level only (basic rate)		
	Statement I		
a)	Concrete above ground level		
1	Add to the basic rate for works up to 4.50m height in ground floor (height to be reckoned from floor level i.e. plinth level in ground level)	Cu.m	68.00
2	Add for works in every upper floor over the rate of preceding floor	Cu.m	134.00

Schedule Item No.	Description	Unit	Rates for 2018-19 in Rupees
3	Brick or stone masonry above ground level		
i.	Add to the basic rates for works up to 4.50m		
	height in ground floor (height to be reckoned		
	from floor level i.e. plinth level in ground level)	Cu.m	44.80
ii.	Add for works in every upper floor over the		
	rate of preceeding floor	Cu.m	90.30
Note: i)	For the works above 4.5m height in individual		
	floor the rate of next floor may be taken.		
	The extra rates allowed for building works are		
	applicable to irrigation works and road works		
	also. The extra rates may be allowed for the		
	structures beyond 1.00m above ground level.		
ii)	The extra rates may be allowed considering		
	the ground level as datum in respect of service		
	reservoirs (where there is no plinth level)		
	Statement II		
a)	Concrete below ground level		
1	Add the basic rate for works above 1.5m depth		
	and upto 4.5m depth below ground level	Cu.m	67.00
2	Add the basic rate for works above 4.5m depth		
	and upto 9.0 m depth below ground level	Cu.m	134.40
3	Add extra over the above item 2 for every		
	additional 4.5m depth beyond 9m depth below		
	ground level	Cu.m	134.40
B)	Brick or stone masonry below ground level		
1	Add the basic rates for works above 1.5m		
	depth and up to 4.5m depth below ground level	Cu.m	45.00
2	Add the basic rates for works above 4.5m		
	depth and up to 9.0m depth below ground level	Cu.m	90.30
3	Add extra over the above item 2 for every		
	additional 4.5m depth beyond 9m depth below		
	ground level	Cu.m	90.30
	Note:		
	1. The above extra rates are applicable for		
	buildings, irrigations, and road works.		
	2. First Grade stone includes hard granite, trap,		
	etc. second Grade stone includes gneiss, lime		
	stone etc.		
	3. The class of materials to be used should		
	always be defined in the items, description in		
	tender schedules, contract schedules etc.		

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
	4. For reinforced cement concrete work, only		
	the hardest locally available stone will be used,		
	if it has good bonding surface and is otherwise		
	suitable proportions for concrete are defined		
	in the relevant standard specification.		
	5. Note under SI.No.179 to 187 in the standard		
	data book applies to arches over doors and		
	windows. For large arches in bridges and		
	irrigation works, addition to this rate, extra		
	cost of centering is to be made.		
6	For concrete mix		
a.	Equal mixes (i.e.) 50 percent mortar		
	mixes only should be adopted for plain		
	concrete for foundation, flooring and RC		
	Concrete for roofs, lintels, etc. wherever		
	cement is used with hard broken stones		
	or brick jelly.		
b.	40 percent or 50 percent mortar mixer		
	may be adopted where lime concrete with		
	brick aggregate is used according to the		
	condition at site.		
27	CONCRETE VIBRATORS		
1	Where vibrators are specified for consolidation		
	in plain Cement concrete, this rate per cu.m		
	over and above the provision made in the		
	standard data book for consolidation with		
	manual labour may be allowed.	Cu.m	39.70
2	Where vibrators are specified for consolidation		
	in RCC, this rate per cu. m over and above		
	the provision made in the standard data book		
	for consolidation with manual labour may be		
	allowed.	Cu.m	53.50
28	Plastering		
1	Clean removal of lime plaster from walls and		
	racking out joints 20mm deep or from terraced		
	roofs racking out joints 12mm deep	sq.m	5.40
2	Clean removal of lime plaster from walls	sq.m	4.20
3	Clean removal of cement plaster from walls	sq.m	4.50
4	Clean removal of cement plaster from walls		
	and racking out joints 20mm deep	sq.m	5.90

Schedule Item No.	Description	Unit	Rates for 2018-19 in Rupees
29	White washing and colour washing and		
	distempering		
1	Thorough scrapping of old plastered surface	sq.m	2.45
2	Washing of plastered surface with soap, soda		
	and water( or with soda, lime, brush and water	) sq.m	3.10
30	Painting, Wood Oiling, Tarring, Varnishing,		
	Bee's Waxing etc		
1	Removing old paint from doors and windows		
	by blow lamp and scrapping, including removal		
	and refitting of shutters	sq.m	19.70
2	Removing old paint from doors and windows		
	by scrapping and refitting of shutters	sq.m	8.30
3	Removing paint from doors, windows and wood		
	works by manual labour	sq.m	5.70
4	Removing old paint from structural steel by		
	blow lamp or sand paper	sq.m	11.80
5	Scrapping and removing old paint from		
	structural steel by manual labour	sq.m	5.30
6	Removing old paint from iron surface with sand		
	paper	sq.m	5.00
7	Repolishing the mosaic flooring including		
	polishing stone and hire charges for polishing		
	machine but excluding cost of electrical charges.	sq.m	11.60
31	Miscellaneous		
1.	Supplying & filling up the empty Cement gunny		
	bags with sand, stitching them conveying the		
	same to site and stacking as directed within a		
	lead of 10m excluding cost of bags, jute,		
	thread, needle, sand etc. (labour only)	Bag	5.00
ii.	Driving piles upto 15 cm dia in river bed	RM	15.40
iii.	Pointing the edge and driving bamboo /		
	casurina/ eucalyptus piles into river bed for		
	the first 1m depth below groundlevel	Each	13.20
iv.	Driving bamboo/ Casurina/ eucalyptus piles into		
	ground beyond 1m depth from ground level.		
	For every 1m (or) part thereof	RM	13.20
32	River Conservancy of Korambu Works		
V.	Brush wood bundles one metre girth and one		
	metre long within an initial lead of 1.6 KM	One bundle	2.55
vi.	Extra for every additional lead of 1.6 KM (for		
	the above item)	One bundle	0.30

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
∨ii.	Driving casurina piles into bed including		
	scaffolding etc., complete	RM	6.40
∨iii.	Casurina walling pieces 40mm to 50mm		
	diameter including fixing with nails and tying		
	with ropes.	RM	8.90
33	Labour wrought and put up for Doors,		
	Windows and Ventilators		
1	Labour wrought and put up in position of frames		
	inclusive of fixing holdfasts for doors, windows		
	and ventilators etc.	Cu.m	7770.00
2	Labour wrought and put up in position of		
	shutters for fully panelled doors (external or		
	internal) moulded panels including labour		
	charges for fixing furniture fittings, complying		
	with standard drawings and standard		
	specification.	sq.m	878.00
3	Labour wrought and put up in position of		
	shutters for fully panelled doors internal five		
	plywood panels including labour charges for		
	fixing furniture fittings, complying with standard		
	drawings and standard specification.	sq.m	729.00
4	Labour wrought and put up in position of		
	shutters for glazed and panelled doors		
	including labour charges for fixing furniture		
	fittings, complying with standard drawings and		
	standard specification.	sq.m	816.00
5	Labour wrought and put up in position of		
	shutters for framed and planked doors		
	including labour charges for fixing furniture		
	fittings, complying with standard drawings and		
	standard specification.	sq.m	681.00
6	Labour wrought and put up in position of		
	shutters for ledged and braced and planked		
	doors including labour charges for fixing		
	furniture fittings complying with standard		
	drawings and standard specification.	sq.m	460.00
7	Labour wrought and put up in position of		
	shutters for glazed windows including labour		
	charges for fixing furniture fittings, complying		
	with standard drawings and standard		
	specification.	sq.m	816.00

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
8	Labour wrought and put up in position of		
	shutters for windows panelled including labour		
	charges for fixing furniture fittings, complying		
	with standard drawings and		
	standard specification.	sq.m	878.00
9	Labour wrought and put up in position of		
	shutters for windows, ledged, braced and		
	planked doors including labour charges for fixing		
	furniture fittings, complying with standard		
	drawings and standard specification.	sq.m	460.00
10	Labour wrought and put up in position frames,		
	shutters for ventilators glazed fixed double		
	frames and with wire netting complete fixed		
	in position in accordance with standard		
	drawings and standard specification.	sq.m	729.00
11	Labour wrought and put up in position frames		
	shutters for swing ventilators and fixed in		
	position in accordance with standard drawings		
	and standard specification.	sq.m	682.00
12	Labour charges for fixing doors along with		
	frames in position etc. complete(finished work)	sq.m	130.00
13	Labour charges for fixing windows and		
	ventilators along with frames in position etc.		
	complete	sq.m	163.00
14	Labour wrought and put up in position flush		
	shutters for single leaf shutters.	sq.m	122.00
15	Labour wrought and put up in position flush		
	shutters for Double leaf shutters	sq.m	188.00
16	Labour wrought and put up in position fly		
	proof wire gauge shutters for doors, windows		
	and ventilators	sq.m	436.00
17	Labour wrought and put up for providing teak		
	wood weld mesh screen with frames 3"x3"		
	(0.075mx0.075m)	sq.m	609.00

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
34	Breaking metals		
i.	Labour charges for breaking 40mm metal		
	from departmental blasted stones	Cu.m	232.00
ii.	Labour charges for breaking 20mm metal		
	from departmental blasted stones	Cu.m	346.00
iii.	Labour charges for breaking 50mm metal from		
	departmental blasted stones	Cu.m	138.50
35	Cement Mortar		
i.	Grinding Mortar (Special Grinding lime)	Cu.m	210.40
ii.	Grinding Mortar (Ordinary Grinding lime)	Cu.m	160.40
iii.	Mixing Mortar – Cement by manual	Cu.m	65.90
iv.	Mixing Mortar- Cement by Machine Mixing	Cu.m	87.50
36	Metal & I ron works		
i.	Petty iron work for truss, straps etc.		
	(Wrought & fixed) labour only	Kg	31.50
ii.	Iron works for trusses & record racks (labour only)	kg	29.10
iii.	Fixing in position mild steel grills for windows,		
	ventilators, etc.	Kg	18.20
iv.	Fixing MS rods round/square for windows	Kg	16.90
V.	Fixing iron bars in windows and ventilators	Kg	16.90
37	Conveyance of excavated earth from the		
	narrow street (width less than 3.75m) to stock		
	yard at nearest place (up to a lead of 5.00Km)		
	including Head load charges from 10 meters		
	to 100 meters and conveyance charges.	Cum	88.80
38	Re-Conveyance of earth from the stock yard		
	to the narrow street (width less than 3.75m)		
	for refilling the trenches after laying the pipe		
	line (up to a lead of 5.00Km) including Head		
	load charges from 10 meters to 100 meters		
	and conveyance charges.	Cum	88.80
39	Disposal of surplus earth including loading and		
	conveyance within a distance of 5 km (basic		
	cost of earth is zero) including loading charges		
	and Conveyance Charges of 5 kms distance.	Cum	78.20
40	Lighting arrangements (maintenance		
	works) with genset :	Per day	2050.00
	Hire charges for portable Genset 1.00 KVA with	-	
	2 Nos. of 150W flood light including all incidental		
	charges, transportation, crew charges and fuel		
	charges etc., complete.		

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
41	Hire charges for deploying earth moving		
	machinery (JCB/Poclain) for earthwork		
	including diesel, oil and labour charges etc.,		
	complete.		
а	JCB	Per Hour	847.00
b	Poclain	Per Hour	2050.00
42	Supply delivery of natural Pebbles filter media		
	for Filter bed operation & sedimentary bore		
	well of spherical in shape and allow even		
	distribution in support bed with good flow. The		
	media should be double washed, screened, kiln		
	dried and classified into various sizes to meet		
	specification including all incidental charges,		
	conveyance, loading & unloading etc., as		
a	directed by the TWAD Board officers.  Size: 5 mm to 8mm Cum 4095.00		
b	Size : 20 mm to 70 mm		
43.	BARRICADING FOR PIPELINE WORKS FOR THE		
13.	WSS / UGSS WORKS		
i	Barricading work (Where, there is less traffic		
	areas and broader roads etc.) for laying of		
	pipe line using casurina poles at 1.50m center		
	to center (8cm to 10cm dia and 1.80m height)		
	vertical with horizontal poles in three rows		
	including painting the vertical poles in the road		
	facing sides with ready mix paint, tying the		
	vertical and horizontal poles with coir rope		
	including fixing charges and fixing 75mm dia		
	reflectors including earth work excavation for		
	fixing vertical posts and finally removing and		
	stacking the materials safely for further use		
	etc., complete and as directed by TWAD Board		
	officers.	RM	Rs.41.00
i	Barricading work (Where the lines are in narrow	1 371	1.0.11.00
,	width of municipality area, busy streets like		
	Market, Bus-stand and in the Highways etc.)		
	for laying of pipe line using casurina poles at		
	1.50m center to center (8cm to 10cm dia. and		
	1.80m height) vertical with horizontal poles in		
	1.00m neight) vertical with horizontal poles in		

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
	two rows, painting the vertical poles in the		
	road facing sides with ready mix paint, tying		
	the vertical and horizontal poles with coir rope		
	including supplying, delivery and fixing of GI		
	sheet (0.90m x 0.8mm thick) in the horizontal		
	poles and fixing 75mm dia. reflectors including		
	earth work excavation for fixing vertical posts		
	and finally removing and stacking the materials		
	safely for further use etc., complete and as		
	directed by TWAD Board officers.	RM	Rs.78.00
44.	SHORING AND STRUTTING FOR THE WSS /		
	UGSS WORKS		
	Shoring, and strutting with sheet piles of size		
	width 400 mm x height of 3m x thickness of		
	9mm as per IS 2314-1986 by driving on both		
	sides of the trench from Ground Level up to		
	the required depth and connecting the above		
	sheet piles by horizontal strutting with sheet		
	piles at an interval of 1.0m, fixing the sheet		
	piles by connecting the horizontal strutting		
	with casurina poles of 8cm to 10cm dia. at		
	1.50m interval and including removing the sheet		
	piles after the pipelines are laid, jointed,		
	tested, and stacking it safely for other uses.		
	It includes the cost of sheet piles and casurina		
	poles including labour charges for erecting the		
	sheet piles, driving the sheet piles, removing		
	the sheet piles, fixing Casurina poles, etc.,		
	complete and all other incidental charges for		
	the depths (i) 0-3mts.,(ii) 0-4mts.,(iii) 0-5mts.,		
	(iv) 0-6mts.,(v) 0-7mts. and (vi) 0-8mts.		
а	0 to 3 m	RM	2039.85
b	0 to 4 m	RM	2765.43
С	0 to 5 m	RM	3505.10
d	0 to 6 m	RM	4229.70
е	0 to 7 m	RM	4970.34
f	0 to 8 m	RM	5775.15

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
45.	RATES FOR TRENCHLESS TECHNOLOGY FOR		
	PIPE LAYING WORK IN RAILWAY/NHAI/SH/NH		
	CROSSINGS		
i	Excavating of driving pit and receiving pit of		
	size 3.00m (length) x 3.50m (breadth), upto		
	5m depth in all soil strata including shoring		
	and strutting using 6mm tk MS Plate of size		
	3.50m x 3.50m usable for 20 operations and		
	providing 16mm thickness MS plate of size		
	3.00m x 3.50m with 100mm x100mm x 12mm		
	angles of 4m length for holding the MS plates		
	for Thrust arrangements to receive the impacts		
	during pushing operation of encasing pipe.		
	Lowering the following size of MS encasing pipe		
	by using Contractor's crane and machineries		
	and jointing MS pipes by welding, across the		
	National Highways/State Highways/ Railways/		
	Canal crossing etc and driving the horizontal		
	bore by pushing / jacking method (trenchless		
	technology method) using contractor's		
	machineries such as cranes, jacks, jacking		
	materials, generator, welding machineries,		
	compressor, jack hammer and other equipments		
	etc. without interfering and causing any		
	hindrance to the movement of traffic or any		
	other vehicles, without any disturbances to		
	the railway/road/canal formation etc. including		
	bailing / pumping of water where ever		
	necessary without affecting any installation		
	like water supply pipeline/telephone cable,		
	electric cables etc. passing nearby area and		
	scooping the earth inside the pipes and pit		
	and depositing the surplus earth in a convenient		
	place and leveling the site after completion of		
	entire work as directed by TWAD Engineers.		
	The rate includes the cost of driving pit, thrust		
	bed/wall and receiving pit to the depth of om		
	to 2m excluding the cost of MS pipes.		

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
а	For 200mm dia MS encasing pipe for various		
	thickness	RM	7840.00
b	For 250mm dia MS encasing pipe for various		
	thickness	RM	7920.00
С	For 300mm dia MS encasing pipe for various		
	thickness	RM	8010.00
ii	Excavating of driving pit and receiving pit of		
	size 3.00m (length) x 3.50m (breadth), depth		
	upto 5m in all soil strata including shoring and		
	strutting using 6mm tk MS Plate of size 3.50m		
	x 3.50m usable for 15 operations and providing		
	16mm thickness MS plate of size 3.00m x 3.50m		
	with 100mm x100mm x 12mm angles of 4m		
	length for holding the MS plates for Thrust		
	arrangements to receive the impacts during		
	pushing operation of encasing pipe. Lowering		
	the following size of MS encasing pipe by using		
	Contractor's crane and machineries and jointing		
	MS pipes by welding, across the National		
	Highways/State Highways/ Railways/Canal		
	crossing etc and driving the horizontal bore by		
	pushing / jacking method (trenchless		
	technology method) using contractor's		
	machineries such as cranes, jacks, jacking		
	materials, generator, welding machineries,		
	compressor, jack hammer and other equipments		
	etc. without interfering and causing any		
	hindrance to the movement of traffic or any		
	other vehicles, without any disturbances to		
	the railway/road/canal formation etc. including		
	bailing / pumping of water where ever		
	necessary without affecting any installation		
	like water supply pipeline/telephone cable,		
	electric cables etc. passing nearby area and		
	scooping the earth inside the pipes and pit		
	and depositing the surplus earth in a convenient		
	place and leveling the site after completion of		
	entire work as directed by TWAD Engineers.		

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
	The rate includes the cost of driving pit, thrust		
	bed/wall and receiving pit to the depth of om		
	to 2m excluding the cost of MS pipes.		
а	For 350mm dia MS encasing pipe for various		
	thickness	RM	9200.00
b	For 400mm dia MS encasing pipe for various		
	thickness	RM	9450.00
С	For 450mm dia MS encasing pipe for various		
	thickness	RM	9680.00
d	For 500mm dia MS encasing pipe for various		
	thickness	RM	9860.00
е	For 600mm dia MS encasing pipe for various		
	thickness	RM	10180.00
f	For 700mm dia MS encasing pipe for various		
	thickness	RM	11000.00
g	For 800mm dia MS encasing pipe for various		
	thickness	RM	11320.00
h	For 900mm dia MS encasing pipe for various		
	thickness	RM	11620.00
iii	Excavating of driving pit and receiving pit of		
	size 3.00m (length) x 3.50m (breadth), depth		
	upto 5m in all soil strata including shoring and		
	strutting using 6mm tk MS Plate of size 3.50m		
	x 3.50m usable for 10 operations and providing		
	16mm thickness MS plate of size 3.00m x 3.50m		
	with 100mm x100mm x 12mm angles of 4m		
	length for holding the MS plates for Thrust		
	arrangements to receive the impacts during		
	pushing operation of encasing pipe. Lowering		
	the following size of MS encasing pipe by using		
	Contractor's crane and machineries and jointing		
	MS pipes by welding, across the National		
	Highways/State Highways/ Railways/Canal		
	crossing etc and driving the horizontal bore by		
	pushing / jacking method (trenchless		
	technology method) using contractor's		
	machineries such as cranes, jacks, jacking		
	materials, generator, welding machineries,		

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
	compressor, jack hammer and other equipments		
	etc. without interfering and causing any		
	hindrance to the movement of traffic or any		
	other vehicles, without any disturbances to		
	the railway/road/canal formation etc. including		
	bailing / pumping of water where ever		
	necessary without affecting any installation		
	like water supply pipeline/telephone cable,		
	electric cables etc. passing nearby area and		
	scooping the earth inside the pipes and pit		
	and depositing the surplus earth in a convenient		
	place and leveling the site after completion of		
	entire work as directed by TWAD Engineers.		
	The rate includes the cost of driving pit, thrust		
	bed/wall and receiving pit to the depth of om		
	to 2m excluding the cost of MS pipes.		
а	For 1000mm dia MS encasing pipe for various		
	thickness	RM	12890.00
b	For 1050mm dia MS encasing pipe for various		
	thickness	RM	13220.00
С	For 1100mm dia MS encasing pipe for various		
	thickness	RM	14230.00
d	For 1200mm dia MS encasing pipe for various		
	thickness	RM	15330.00
е	For 1400mm dia MS encasing pipe for various		
	thickness	RM	16550.00
f	For 1600mm dia MS encasing pipe for various		
	thickness	RM	17800.00
g	For 1800mm dia MS encasing pipe for various		
	thickness	RM	19230.00
h	For 2000mm dia MS encasing pipe for various		
	thickness	RM	20710.00
i	For 2200mm dia MS encasing pipe for various		
	thickness	RM	23060.00

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
46.	REPLACEMENT OF UNDER GROUND		
	UTILITIES (HSC PIPES, DISTRIBUTION		
	SYSTEM & PUMPING MAIN PIPES, Etc.)		
i.	Replacement of Underground Utilities (GI Pipe)		
	damaged during earthwork excavations for pipe		
	laying works including cost of additional		
	earthwork excavation in all soil strata,		
	including BT/CC road cutting, removal of slushy		
	soil and replacing the pipeline with sound pipe,		
	including supply and delivery of GI pipes,		
	coupler, Union, jointing materials and required		
	specials, cutting, threading, conveying, laying,		
	jointing and cost of refilling for the additional		
	earthwork etc complete and as directed by		
	the TWAD board officers.		
a.	15mm Dia GI Pipe	1RM	342.89
b.	20mm Dia GI Pipe	1RM	375.56
C.	25mm Dia GI Pipe	1RM	462.22
d.	32mm Dia GI Pipe	1RM	550.56
e.	40mm Dia GI Pipe	1RM	628.89
f.	50mm Dia GI Pipe	1RM	797.22
g.	65mm Dia GI Pipe	1RM	1200.33
h.	80mm Dia GI Pipe	1RM	1464.00
i.	100mm Dia GI Pipe	1RM	2075.00
j.	125mm Dia GI Pipe	1RM	2802.00
ii.	Replacement of Underground Utilities (PVC Pipe)		
	damaged during earthwork excavation for pipe		
	laying works including cost of additional		
	earthwork excavation in all soil strata,		
	including BT/CC road cutting, removal of slushy		
	soil and replacing the pipeline with sound pipe,		
	including supply and delivery of PVC pipes,		
	couplers, jointing materials and required		
	specials, cutting, conveying, laying, jointing		
	and cost of refilling for the additional earthwork		
	etc complete and as directed by the TWAD		
	board officers.		
a.	15mm Dia PVC Pipe (10 KSC)	1RM	168.30

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
b.	20mm Dia PVC Pipe (10 KSC)	1RM	175.33
С.	25mm Dia PVC Pipe (10 KSC)	1RM	190.05
d.	32mm Dia PVC Pipe (10 KSC)	1RM	208.08
e.	40mm Dia PVC Pipe (10 KSC)	1RM	239.98
f.	50mm Dia PVC Pipe (10KSC)	1RM	248.83
g.	63mm Dia PVC Pipe (10KSC)	1RM	296.00
h.	75mm Dia PVC Pipe (10KSC)	1RM	348.00
i.	90mm Dia PVC Pipe (10KSC)	1RM	428.83
j.	110mm Dia PVC Pipe (10KSC)	1RM	643.89
k.	140mm Dia PVC Pipe (10KSC)	1RM	958.89
I.	160mm Dia PVC Pipe (10KSC)	1RM	1197.56
m.	180mm Dia PVC Pipe (10KSC)	1RM	1485.85
n.	200mm Dia PVC Pipe (10KSC)	1RM	1924.51
iii	Replacement of Underground Utilities (PVC Pipe) damaged during earthwork excavation for pipe laying works including cost of additional earthwork excavation in all soil strata, including BT/CC road cutting, removal of slushy soil and replacing the pipeline with sound pipe, including supply and delivery of PVC pipes, couplers, jointing materials and required specials, cutting, conveying, laying, jointing and cost of refilling for the additional earthwork etc complete and as directed by the TWAD board officers.		
a.	50mm Dia PVC Pipe (6KSC)	1RM	222.33
b.	63mm Dia PVC Pipe (6KSC)	1RM	255.50
С.	75mm Dia PVC Pipe (6KSC)	1RM	288.00
d.	90mm Dia PVC Pipe (6KSC)	1RM	360.33
e.	110mm Dia PVC Pipe (6KSC)	1RM	507.89
f.	140mm Dia PVC Pipe (6KSC)	1RM	741.89
g.	160mm Dia PVC Pipe (6KSC)	1RM	909.56
h.	180mm Dia PVC Pipe (6KSC)	1RM	1109.35
i.	200mm Dia PVC Pipe (6KSC)	1RM	1486.51
iv	Replacement of Underground Utilities (PVC Pipe) damaged during earthwork excavation for pipe laying works including cost of additional earthwork excavation in all soil strata,		

Schedule Item No.	Description	Unit	Rates for 2018-19 in Rupees
	including BT/CC road cutting, removal of slushy		
	soil and replacing the pipeline with sound pipe,		
	including supply and delivery of PVC pipes,		
	couplers, jointing materials and required		
	specials, cutting, conveying, laying, jointing		
	and cost of refilling for the additional earthwork		
	etc complete and as directed by the TWAD		
	board officers.		
a.	63mm Dia PVC Pipe (4KSC)	1RM	227.33
b.	75mm Dia PVC Pipe (4KSC)	1RM	254.50
C.	90mm Dia PVC Pipe (4KSC)	1RM	299.00
d.	110mm Dia PVC Pipe (4KSC)	1RM	429.22
e.	140mm Dia PVC Pipe (4KSC)	1RM	596.72
f.	160mm Dia PVC Pipe (4KSC)	1RM	704.56
g.	180mm Dia PVC Pipe (4KSC)	1RM	857.85
h.	200mm Dia PVC Pipe (4KSC)	1RM	1081.35
V	Replacement of Underground Utilities (AC Pipe)		
	damaged during earthwork excavation for pipe		
	laying works including cost of additional		
	earthwork excavation in all soil strata,		
	including BT/CC road cutting, removal of slushy		
	soil and replacing the pipeline with next		
	available higher size PVC pipe, including supply		
	and delivery of PVC pipes, couplers, jointing		
	materials and required specials, cutting,		
	conveying , laying, jointing and cost of refilling		
	for the additional earthwork etc complete and		
	as directed by the TWAD board officers.		
a.	80mm Dia AC Pipe	1RM	632.91
b.	100mm Dia AC Pipe	1RM	747.24
С.	125mm Dia AC Pipe	1RM	1087.74
vi	Replacement of Underground Utilities (AC Pipe)		
	damaged during Earthwork excavation for pipe		
	laying works including cost of additional		
	earthwork excavation in all soil strata,		
	including BT/CC road cutting , removal of slushy		
	soil and replacing the pipeline with sound DI		
	s/s pipe, including supply and delivery of DI		

Schedule I tem No.	Description	Unit	Rates for 2018-19 in Rupees
	s/s pipes, D/S collars, jointing materials and		
	required specials, cutting, conveying, laying,		
	jointing and cost of refilling for the additional		
	earthwork etc complete and as directed by		
	the TWAD board officers.		
a.	150mm Dia AC Pipe	1RM	2432.18
b.	200mm Dia AC Pipe	1RM	3051.48
С.	250mm Dia AC Pipe	1RM	3747.62
d.	300mm Dia AC Pipe	1RM	4426.80
e.	350mm Dia AC Pipe	1RM	5234.07
f.	400mm Dia AC Pipe	1RM	6123.19
∨ii	Replacement of Underground Utilities (HDPE		
	Pipes) damaged during Earthwork excavations		
	for pipe laying works including cost of additional		
	earthwork excavation in all soils, including BT		
	cutting, CC roads, removal of slushy soil and		
	replacing the pipeline with sound pipe, including		
	supply and delivery of HDPE pipes, couplers,		
	jointing materials and required specials, cutting,		
	threading, conveying, laying, jointing and cost		
	of refilling for the additional earthwork etc		
	complete and as directed by the TWAD board		
	officers.		
a.	50mm Dia HDPE Pipe	1RM	283.83
b.	63mm Dia HDPE Pipe	1RM	336.67
С.	75mm Dia HDPE Pipe	1RM	395.00
d.	90mm Dia HDPE Pipe	1RM	470.17
e.	110mm Dia HDPE Pipe	1RM	639.06
f.	125mm Dia HDPE Pipe	1RM	744.89
g.	140mm Dia HDPE Pipe	1RM	859.22
h.	160mm Dia HDPE Pipe	1RM	1026.39
i.	200mm Dia HDPE Pipe	1RM	1446.78