

PACKAGE -CPC-55/2022-23 132/33 KV S/S AT JHARBANDH & ASSOCIATED 132 KV LILO LINE (SUPPLY)			ODISHA POWER TRANSMISSION CORPORATION LIMITED					
			NAME OF THE WORK:-					
			NOTICE INVITING TENDER-NIT NO. -CPC-55/2022-23 & BID DOCUMENT No.:Sr. G.M- CPC- e-PRICE BID FOR WORKS CONTRACT (SAC CODE - 995423): SCHEDULE - VII-A - PART -I SUPPLY COMPONENT OF THE WORKS CONTRACT-( PACKAGE- 55/2022-23)					
		NAME OF BIDDER						
SUBSTATION EQUIPMENTS / MATERIALS					GST			
Sl. No.	DESCRIPTION OF ITEMS(SCHEDULE-2A-SS) SUPPLY OF FOLLOWING EQUIPMENT & MATERIALS (As per Technical Specification)	UNITS	Qty	BASIC PRICE PER UNIT (Taxable Value) In Rs	CGST @ 9% PER UNIT (INTRA-STATE)	OGST @ 9% PER UNIT (INTRA-STATE)	TOTAL PRICE PER UNIT ( In Rs)	TOTAL PRICE FOR THE QUANTITY
1	2	3	4	5	6	7	8	9
1	145 KV, 800-400-200 A, 31.5 KA, 4 core Single Phase Current Transformer (3 Nos PS CLASS & 1 No. 0.2s CLASS)	Nos	15		0.00	0.00	0.00	0.00
2	145 KV, 1250A, 31.5KA, ISOLATORS							
2.1	Single Isolator without Earth Switch	Nos	9		0.00	0.00	0.00	0.00
2.2	Double Isolator with Earth Switch	Nos	2		0.00	0.00	0.00	0.00
2.3	Double Isolator without Earth Switch	Nos	2		0.00	0.00	0.00	0.00
4	120 KV Metal Oxide Surge Arrester, 10 KA, Class III with insulated base supports and surge counter suitable for SAS integration	Nos	12		0.00	0.00	0.00	0.00
5	145 KV, 2 Core, Single Phase IVT	Nos	9		0.00	0.00	0.00	0.00
6	132 KV Bus Post Insulator	Nos	18		0.00	0.00	0.00	0.00
7	145KV, 3150A, 40KA, SF6 Circuit Braker with supporting Structure. Facilities for integration with SAS as per the site requirement.	Nos	5		0.00	0.00	0.00	0.00
7.1	36 KV,800-400-200,25KA,3 core Single phase Current Transformer (2 Nos PS class & 1 No. 0.2s class)	Nos	18		0.00	0.00	0.00	0.00
7.2	36 KV, 800-400-200, 25KA, 4 core Single phase Current Transformer (3 Nos PS class & 1 No. 0.2s class)	Nos	6		0.00	0.00	0.00	0.00
8	<b>36 KV,1250A,25KA,ISOLATORS</b>							
8.1	Single Isolator without Earth Switch	Nos	18		0.00	0.00	0.00	0.00
8.2	Single Isolator with Earth Switch	Nos	5		0.00	0.00	0.00	0.00
8.3	Beam Mounted Single Isolator without Earth Switch	Nos	4		0.00	0.00	0.00	0.00
9	30 KV, Metal Oxide Surge Arrester, 10KA, class II with insulated base supports and surge counter	Nos	27		0.00	0.00	0.00	0.00
10	36 KV, 2 Core Single Phase IVT (1 core 3P & 1 core 0.2s)	Nos	3		0.00	0.00	0.00	0.00
11	36 KV, 1250A, 25KA, Vacuum Circuit Breaker with supporting Structure. Facilities for integration with SAS as per the site requirement.	Nos	8		0.00	0.00	0.00	0.00
12	33 KV Bus Post Insulator	Nos	28		0.00	0.00	0.00	0.00
13	<b>BUS BAR &amp; CIRCUIT MATERIALS</b>							
13.1	<b>132KV TENSION &amp; SUSPENSION INSULATORS</b>							
13.1.1	120KN Porcelain Anti Fog type Disc Insulators	Nos	780		0.00	0.00	0.00	0.00
13.1.2	90KN Porcelain Anti Fog type Disc Insulators	Nos	162		0.00	0.00	0.00	0.00
13.2	<b>33KV TENSION &amp; SUSPENSION INSULATORS</b>							
13.2.1	120KN Porcelain Anti Fog type Disc Insulators	Nos	264		0.00	0.00	0.00	0.00
13.2.2	90KN Porcelain Anti Fog type Disc Insulators	Nos	45		0.00	0.00	0.00	0.00
13.3	ACSR CONDUCTORS							
13.3.1	ACSR Moose Conductor	km	4.0		0.00	0.00	0.00	0.00
13.3.2	ACSR Panther Conductor (Station Transformer connections)	Mtrs	100		0.00	0.00	0.00	0.00
13.4	HARDWARES FITTINGS							
13.4.1	132 KV Single Anchoring Double Tension H/W fitting (without Turn buckle) suitable for twin ACSR Moose conductor (300mm spacing)	Nos	18		0.00	0.00	0.00	0.00

13.4.2	132 KV Single Tension H/W fitting with Turn bucle suitable for single ACSR Moose	Nos	42		0.00	0.00	0.00	0.00
13.4.3	132 KV Single suspension H/W fitting suitable for single ACSR Moose	Nos	18		0.00	0.00	0.00	0.00
13.4.4	33 KV Single Anchoring DoubleTension H/W fitting (without Turn buckle) suitable for twin ACSR Moose (250mm spacing)	Nos	18		0.00	0.00	0.00	0.00
13.4.5	33 KV Single Tension H/W fitting (without Turn buckle) suitable for single ACSR Moose	Nos	30		0.00	0.00	0.00	0.00
13.4.6	33 KV Single Suspension H/W fitting suitable for single ACSR Moose	Nos	21		0.00	0.00	0.00	0.00
13.5	<b>CLAMPS &amp; CONNECTORS (100mm conductor grip)</b>							
13.5.1	132 KV 'T' Clamp for Twin Moose run with single Moose ACSR drop	Nos	15		0.00	0.00	0.00	0.00
13.5.2	132 KV 'T' Clamp for Single Moose run with single Moose ACSR drop	Nos	27		0.00	0.00	0.00	0.00
13.5.3	132 KV 'T' Clamp for Single Panther run with single Moose ACSR drop	Nos	12		0.00	0.00	0.00	0.00
13.5.4	132 KV IVT Clamp (Single Moose)	Nos	9		0.00	0.00	0.00	0.00
13.5.5	132 KV CT Clamp (Bimetallic, Single Moose)	Nos	30		0.00	0.00	0.00	0.00
13.5.6	132 KV LA Clamp (Single Moose)	Nos	12		0.00	0.00	0.00	0.00
13.5.7	132 KV CB Clamp (Single Moose)	Nos	30		0.00	0.00	0.00	0.00
13.5.8	132 KV Isolater Pad Clamp (Single Moose)	Nos	127		0.00	0.00	0.00	0.00
13.5.9	132 KV Isolator pad clamp for Section Isolators (Twin Moose type)	Nos	6		0.00	0.00	0.00	0.00
13.5.10	132 KV PI Clamp (Single Moose)	Nos	18		0.00	0.00	0.00	0.00
13.5.11	Spacer for Twin 132 KV Bus (Moose)	Nos	36		0.00	0.00	0.00	0.00
13.5.12	33 KV 'T' Clamp for Twin Moose run with single Moose ACSR drop	Nos	24		0.00	0.00	0.00	0.00
13.5.13	33 KV 'T' Clamp for Single Moose run with single Moose ACSR drop	Nos	78		0.00	0.00	0.00	0.00
13.5.14	33 KV IVT Clamp (Single Moose)	Nos	3		0.00	0.00	0.00	0.00
13.5.15	33 KV CT Clamp (Bimetallic, Single Moose)	Nos	48		0.00	0.00	0.00	0.00
13.5.16	33 KV LA Clamp (Single Moose)	Nos	27		0.00	0.00	0.00	0.00
13.5.17	33 KV CB Clamp (Single Moose)	Nos	48		0.00	0.00	0.00	0.00
13.5.18	33 KV Isolator pad clamp	Nos	138		0.00	0.00	0.00	0.00
13.5.19	33 KV Isolator pad clamp for Section Isolators (Twin Moose Type)	Nos	12		0.00	0.00	0.00	0.00
13.5.20	33 KV Isolator pad clamp for Station Transformer Isolators ( Single ACSR Panther)	Nos	12		0.00	0.00	0.00	0.00
13.5.21	33 KV PI Clamp	Nos	22		0.00	0.00	0.00	0.00
13.5.22	Spacer for Twin 33 KV Bus (Moose)	Nos	25		0.00	0.00	0.00	0.00
13.5.23	PG Clamp for ACSR Moose (Two Bolted)	Nos	50		0.00	0.00	0.00	0.00
14	<b>SUBSTATION EARTHING SYSTEMS</b>							
14.4	<b>EARTH SPIKES &amp; IT'S HARDWARES &amp; FITTING</b>							
14.4.1	Earth Spike for 132KV side Columns : 23 Nos @ 7 mtrs length each	Set	26		0.00	0.00	0.00	0.00
14.4.2	Earth spike for 33KV side Columns : 21 Nos @ 5 mtrs length each	Set	22		0.00	0.00	0.00	0.00
14.4.3	Earthing Conductor for Earth Mat: 75 x 10 mm <b>GI Flat.</b>	MT	24		0.00	0.00	0.00	0.00
14.4.4	Earthing Conductor for risers: 50 x 6 mm <b>GI Flat</b>	MT	10		0.00	0.00	0.00	0.00
14.4.5	50 mm Heavy Duty GI Perforated Pipes, 3 mtrs long for treated earth pit	Nos	163		0.00	0.00	0.00	0.00
14.4.6	40mm MS rod 3 mtrs long for non treated earth pit	Nos	72		0.00	0.00	0.00	0.00
15	<b>G.I Cable Trays including G.I. support Angle suitable for different sections i.e. Section: 2-2, 3-3 &amp; 4-4 along with its accessories as per TS.</b>							
15.1	G.I Cable Trays(size: 450x75x2500mm)	Mtrs	750		0.00	0.00	0.00	0.00
15.2	G.I Cable Trays(size: 300x75x2500mm)	Mtrs	1000		0.00	0.00	0.00	0.00
15.3	G.I Cable Trays(size: 150x75x2500mm)	Mtrs	750		0.00	0.00	0.00	0.00
15.4	Support G. I angle 50x50x6 mm for cable tray	MT	1.5		0.00	0.00	0.00	0.00
16	<b>SWITCH YARD STRUCTURES COLUMN &amp; BEAM (LATTICE TYPE) FOR 132/33 KV CLASS INCLUDING FOUNDATION BOLTS &amp; NUTS.</b>							
16.1	<b>DIFFERENT TYPES OF COLUMNS WITH DETAILS</b>							
16.1.1	T1S - 132 KV(Nominal unit wt- 1.2 MT) =20 Sets	MT	24.00					
16.1.2	T4S - 132KV (Nominal unit wt- 0.95 MT) =6 Sets	MT	5.70					
16.1.3	T8S - 33KV(Nominal unit wt- 0.83 MT) = 10 Sets	MT	8.30					
16.1.4	T9S - 33KV(Nominal unit wt- 0.6 MT)=12 Sets	MT	7.20					

<b>16.2</b>	<b>DIFFERENT TYPE OF BEAMS WITH DETAILS</b>							
16.1.1	G1 - 132 KV(Nominal unit wt- 0.62 MT) = 20 Sets	MT	12.40					
16.1.2	G2 - 132 KV(NOMINAL UNIT WT- 0.9 MT) =4 Sets	MT	3.60					
16.1.3	G6 - 33KV (NOMINAL UNIT WT- 0.53 MT) = 4 Sets	MT	2.12					
16.1.4	G4 - 33KV(NOMINAL UNIT WT- 0.4 MT) =8 Sets	MT	3.20					
16.1.5	G4X - 33KV (NOMINAL UNIT WT- 0.52 MT) =4 Sets	MT	2.08					
<b>16.3</b>	<b>TOTAL WEIGHT OF COLUMN &amp; BEAM</b>	MT	<b>68.60</b>		0.00	0.00	0.00	0.00
<b>16.4</b>	<b>SWITCH YARD EQUIPMENT STRUCTURES (LATTICE TYPE) FOR 132/33 KV CLASS INCLUDING FOUNDATION BOLTS &amp; NUTS.</b>							
16.4.1	Structure for 132KV CT (Unit Weight - 214.546 Kg) =15 Nos	MT	3.22					
16.4.2	Structure for 132KV IVTs (Unit Weight - 231.195 Kg) =9 Nos	MT	2.08					
16.4.3	Structure for 132KV Surge Arrester (Unit Weight - 179.893 Kg) =12 Nos	MT	2.16					
16.4.4	132 KV Single Isolator without Earth Switch (Unit weight - 658.767 Kg) = 9 Nos	MT	5.93					
16.4.5	132 KV Double Isolator without Earth Switch (Unit Weight - 979.10 Kg) = 2 Nos	MT	1.96					
16.4.6	132 KV Double Isolator with Earth Switch (Unit Weight - 1120.559 Kg) = 2 Nos	MT	2.24					
16.4.7	Structure for 132KV BPI (Unit Weight - 309.883 Kg) =18 Nos	MT	5.58					
16.4.8	Structure for 33KV CT (Unit Weight - 148.80 Kg) =18 Nos	MT	2.68					
16.4.9	Structure for 33KV IVTS (Unit Weight - 124.336 Kg) =3 Nos	MT	0.37					
16.4.10	Structure for 33KV LAs (Unit Weight - 148.8 Kg) =6 Nos	MT	0.89					
16.4.11	33 KV Single Isolator without Earth Switch (Unit weight - 294.893 Kg) = 18 Nos	MT	5.31					
16.4.12	33 KV Single Isolator with Earth Switch(Unit weight - 324.8 Kg) = 5 Nos	MT	1.62					
16.4.13	Structure for 33KV BPI (Unit Weight - 148.80 Kg) =22 Nos	MT	3.27					
16.4.14	Structure for 33KV HG Fuse (Unit Weight - 245 Kg) =2 Nos	MT	0.49					
<b>16.5</b>	<b>TOTAL WEIGHT OF EQUIPMENT STRUCTURE</b>	MT	<b>37.80</b>		0.00	0.00	0.00	0.00
<b>16.6</b>	<b>Total weight of GI Nuts and bolts for the above Column, Beam &amp; structures</b>	MT	5.32		0.00	0.00	0.00	0.00
<b>16</b>	<b>GENERAL EQUIPMENT &amp; SUBSTATION ACCESSORIES</b>							
<b>16.1</b>	<b>POWER CABLES, 1.1KV, XLPE/PVC ARMoured, ALUMINIUM CONDUCTOR (As per Specification)</b>							
16.1.1	XLPE 3.5 CX300 mm <sup>2</sup>	Mtrs	300		0.00	0.00	0.00	0.00
16.1.2	XLPE 3.5 CX185 mm <sup>2</sup>	Mtrs	300		0.00	0.00	0.00	0.00
16.1.3	XLPE 3.5 CX120 mm <sup>2</sup>	Mtrs	200		0.00	0.00	0.00	0.00
16.1.4	PVC 3.5 CX70 mm <sup>2</sup>	Mtrs	200		0.00	0.00	0.00	0.00
16.1.5	PVC 3.5 CX35 mm <sup>2</sup>	Mtrs	1800		0.00	0.00	0.00	0.00
16.1.6	PVC 4 CX 16 mm <sup>2</sup>	Mtrs	700		0.00	0.00	0.00	0.00
16.1.7	PVC 4 CX 6 mm <sup>2</sup>	Mtrs	1500		0.00	0.00	0.00	0.00
16.1.8	PVC 2CX 6 mm <sup>2</sup>	Mtrs	2000		0.00	0.00	0.00	0.00
<b>16.2</b>	<b>CONTROL CABLES, 1.1 KV, PVC, STRANDED COPPER (As per specification)</b>							
16.2.1	2 CX 2.5 mm <sup>2</sup>	Mtrs	1500		0.00	0.00	0.00	0.00
16.2.2	4 CX 2.5 mm <sup>2</sup>	Mtrs	12000		0.00	0.00	0.00	0.00
16.2.3	5 CX 2.5 mm <sup>2</sup>	Mtrs	1500		0.00	0.00	0.00	0.00
16.2.4	7CX 2.5 mm <sup>2</sup>	Mtrs	4500		0.00	0.00	0.00	0.00
16.2.5	10 CX 2.5 mm <sup>2</sup>	Mtrs	4000		0.00	0.00	0.00	0.00
16.2.6	12 CX 2.5 mm <sup>2</sup>	Mtrs	3500		0.00	0.00	0.00	0.00
16.2.7	16 CX 2.5 mm <sup>2</sup>	Mtrs	500		0.00	0.00	0.00	0.00
16.2.8	19 CX 2.5 mm <sup>2</sup>	Mtrs	1500		0.00	0.00	0.00	0.00
16.3	<b>SINGLE CORE 1.1KV, PVC UN-ARMoured COPPER CONDUCTOR:</b> for connection from Battery Set to Battery Charger and from Battery Charger to DCDB on cable tray / HDPE pipe/PVC pipe etc							
16.3.1	1CX 120 mm <sup>2</sup> BAT TO BAT CHARGER & CHARGER TO DCDB	Mtrs	200		0.00	0.00	0.00	0.00
<b>17</b>	<b>SUPPLY OF POWER TRANSFORMER, NCTs &amp; OTHER ACCESSORIES AS PER TECHNICAL SPECIFICATION</b>							
17.1	132/33 KV, 20 MVA Yn Yn Power Transformer as per TS	Nos	2		0.00	0.00	0.00	0.00

17.2	The following type tests shall be carried out in presence of Purchaser's representative on entire quantity of the Transformer. (a) Temperature Rise Test. (b) Measurement of Zero Sequence Impedance. (c) Auxiliary Power Consumption.. (d) Vacuum Test (e) Pressure Test (f) IP-55 Test	Lot	1		0.00	0.00	0.00	0.00
17.3	The following type test shall be carried out in presence of Purchaser's representative on one unit out of the Lot at the discretion of the purchaser. (a) <del>Dynamic Short Circuit (DSC)Test charges including post DSC tests</del>	No	1		0.00	0.00	0.00	0.00
17.4	Charges for Transportation of Transformer from the Factory site to the Location for Dynamic Short Circuit (DSC)Test & back to Factory and other incidental charges if any.	Lot	1		0.00	0.00	0.00	0.00
17.5	<b>FIRE FIGHTING</b> (Nitrogen Injection Type Fire Prevention & Extinguishing System): Suitable for 20 MVA, 132/33 KV Power Transformer as per Technical Specification & latest standard.	Lot	2		0.00	0.00	0.00	0.00
17.6	<b>One set of spares as per TS for Two nos Transformers</b>	Lot	1		0.00	0.00	0.00	0.00
18	<b>SUPPLY OF STATION TRANSFORMER &amp; OTHER MATERIALS FOR MEETING THE AUXILIARY SUPPLY OF THE SUB-STATION AS PER TECHNICAL SPECIFICATION</b>							
18.1	Station Transformer - 33KV/433V, 250 KVA (As per Specification)	Nos	2		0.00	0.00	0.00	0.00
18.2	HG Fuse set- for 33kV side of the station transformer including the mounting insulators, channels complete in all respect (each set comprises three single HG fuse)	Sets	2		0.00	0.00	0.00	0.00
19	SUBSTATION AUTOMATION SYSTEM (IEC 61850) Gateway Panel: for Sub-Station Automation (in PRP on FO as per the specification & indicative drawing) system (for All 132 & 33 KV side bays) and with other accessories, comprising: 1. HMI servers (Main & Stand By) 2. DR PC 3. Redundant Gateway 4. Color Laser jet Printer-1Nos 5. Dot Matrix Printer-1Nos 6. Ethernet Switches (with 20% spares Port) for process bus & station bus 7. LIU 8. Multimode glass fibre Double jacket armoured optical cables 9. Red boxes 10. Inverters - 3 KVA (Main & Stand by) 11. Furniture (Operator desk 1 Nos & Chair-6Nos) 12. <b>Full HD LED TV</b> for display etc as per TS, including all type of accessories & special cables like F.O patch cord & armoured FO cables of adequate length etc required for the system in all respect as per latest IEC 61850- ED-2 standard & as per	Lot	1		0.00	0.00	0.00	0.00
19.1								
19.2	Aux BCU for station auxiliary system (Station AC, station DC, Lighting, Firefighting, DG set, Air conditioning etc): as per requirement compliant to IEC 61850 - ED-2 protocol with PRP on FO. Power Supply 220V DC.	Nos	1		0.00	0.00	0.00	0.00
19.3	GPS System with IRIG-B/SNTP/PTP with VDU (Clock)	Nos	1		0.00	0.00	0.00	0.00
19.4	<b>132KV Level Protection Panel- Single Panel Twin Bay Type (2 Bays in One Panel) with IEC 61850-ED-2 PRP on FO</b>							
19.4.1	132KV feeder Protection Panel: Feeder-1 & 2 in one panel Numerical Distance protection relay, BCPD and other auxiliary relays as per requirement compliant to IEC 61850-ED-2 protocol with PRP on FO. Power Supply 220V DC.	Nos	1		0.00	0.00	0.00	0.00
19.4.2	132KV Transformer Protection Panel: Transformer-1 & 2 in one panel Numerical Differential protection relay, BCPD and other auxiliary relays as per requirement compliant to IEC 61850-ED-2 protocol with PRP on FO. Power Supply 220V DC.	Nos	1		0.00	0.00	0.00	0.00

19.4.3	132KV Buscoupler Protection Panel: BCPU and other auxiliary relays as per requirement compliant to IEC 61850-ED-2 protocol with PRP on FO. Power Supply 220V DC.	Nos	1		0.00	0.00	0.00	0.00
19.5	<b>33KV Level Protection Panel- Single Panel Twin Bay Type (2 Bays in One Panel) with IEC 61850-ED-2 PRP on FO</b>							
19.5.1	33KV Feeder Protection Panel: with BCPU & with other Auxiliary relays as required as per the scheme compliant to IEC 61850 - ED-2 protocol with PRP on FO. Power Supply 220V DC.  33KV Buscoupler Protection Panel: with BCPU & with other Auxiliary relays as required as per the scheme compliant to IEC 61850-ED-2 protocol with PRP on FO. Power Supply 220V DC.  Note: 5 Nos. of Line Feeder Bays and 1 Bus coupler to be considered in 3 Panels.	Nos	3		0.00	0.00	0.00	0.00
19.5.2	33KV Transformer protection panel: with BCPU, numerical REF & with other Auxiliary relays as required as per the scheme, compliant to IEC 61850-ED-2 protocol with PRP on FO. Power Supply 220V DC.  Note: 2 Nos. of Transformer Feeder Bays to be considered in one Panel.	Nos	1		0.00	0.00	0.00	0.00
<b>20</b>	<b>AC &amp; DC SYSTEM</b>							
<b>20.1</b>	<b>AC SYSTEM</b>							
20.1.1	<b>MAIN AC DB ( Indoor Type):</b> MAIN DB-1, MAIN DB-2 with B/C. The incomer & Bus coupler shall have 800 A, 50KA, drawout type with <i>Numerical SAS compliant Relay (O/C, E/F, U/V, O/V protection)</i> . The ACDB shall be suitable for automatic switching OFF & ON during power failure. Facilities for integration with SAS as per the site requirement.	Set	1		0.00	0.00	0.00	0.00
20.1.2	<b>ACDB (Indoor Type):</b> AC DB-1, AC DB-2 with B/C. Incomer-1 & 2, Bus coupler and DG set Incomer-1 & 2 shall have <i>400A Motorised MCCB for automatic operation</i> . The ACDB shall be suitable for automatic switching OFF & ON , auto start of DG set etc during power failure. Facilities for integration with SAS as per the site requirement.	Set	1		0.00	0.00	0.00	0.00
20.1.3	<b>Main Lighting Distribution Board (Indoor Type):</b> Having 250A MCCB for Incomers with source-1, Source-2 & Bus coupler.	Set	1		0.00	0.00	0.00	0.00
20.1.4	<b>Indoor Lighting Distribution Board (Indoor Type)</b>	Set	1		0.00	0.00	0.00	0.00
20.1.5	<b>Emergency Lighting Distribution Board (Outdoor type):</b> The ELDB should be supplying to 20% of switchyard lights, each of 132KV and 33KV Switchyard.	Set	1		0.00	0.00	0.00	0.00
20.1.6	Indoor Receptacle Board	Set	1		0.00	0.00	0.00	0.00
20.1.7	Bay Marshalling Kiosk (Outdoor type): 1 BMK for 3 nos 132KV bays and 1 BMK for 4 nos 33KV bays	Nos	5		0.00	0.00	0.00	0.00
20.1.8	Console Box for Switchyard Lighting (Outdoor type)	Nos	2		0.00	0.00	0.00	0.00
20.1.9	Console Box for Street Lighting (Outdoor type)	Nos	2		0.00	0.00	0.00	0.00
20.1.10	Console Box for Colony Supply (Outdoor type)	Nos	1		0.00	0.00	0.00	0.00
20.1.11	Switchyard Receptacle Board for Transformer Oil Filtration (Outdoor type)	Nos	1		0.00	0.00	0.00	0.00
20.1.12	Switchyard Receptacle Board for Welding & Other Emergency (Outdoor type)	Nos	2		0.00	0.00	0.00	0.00
20.1.13	CT Out Door Console Boxes ( 132 KV CT-5 Nos, 33 KV CT-8 Nos) (Outdoor type)	Nos	13		0.00	0.00	0.00	0.00
20.1.14	PT Out Door Console Boxes (132 KV IVT-3 No., 33 KV IVT-1 No.) (Outdoor type)	Nos	4		0.00	0.00	0.00	0.00
20.1.15	Outdoor kiosk for Station Transformer (Outdoor type)	Nos	2		0.00	0.00	0.00	0.00
20.1.16	ACDB for Yard Kiosk (Indoor Type): LT supply to Protection panels, Kiosk lighting, AC etc made of 2mm CR sheet	Nos	1		0.00	0.00	0.00	0.00
20.1.17	DCDB for Yard Kiosk (Indoor Type): DC supply to Protection panels having source-1 & 2 with auto changeover facility, made of 2mm CR sheet.	Nos	1		0.00	0.00	0.00	0.00
<b>20.2</b>	<b>DC SYSTEM</b>							

20.2.1	<b>220 V DC DISTRIBUTION BOARD</b> (Indoor Type): Having 63A DC MCCB for Incomers, Bus Coupler with interlock, E/F (EARTH LEAKAGE), UNDER & OVER VOLTAGE and shall be SAS compliant.	Set	1		0.00	0.00	0.00	0.00
20.2.2	220 V DC Emergency Lighting Distribution Board (Indoor Type)	Set	1		0.00	0.00	0.00	0.00
20.2.3	Battery cells (2.2V), 350 AH Plante Type for 220 V DC (107 Nos + 3 Nos spare)	Set	1		0.00	0.00	0.00	0.00
20.2.4	Battery Charger For 350 Ah Plante Type Battery, 107 cells, 2.2V, Trickle charge volt-2.25V(Float & Float Cum Boost). The Charger ON/OFF status, input/output voltage, output current, associated charger protection signals shall be provided for integration with SAS.	Set	1		0.00	0.00	0.00	0.00
21	<b>ACCESSORIES FOR OPGW SYSTEM With OPGW cable</b>							
21.1	24 Fibre Optic Approach cable along with HDPE Pipes	Km	1.00		0.00	0.00	0.00	0.00
21.2	Optical line Terminal Equipment(OLTE) -STM4 type SDH equipment with integrated MUX & tributary cards for speech & data ports for interfacing of Speech & data which should be compatible with existing OPTCL system <b>including all accessories for successful commissioning.</b>	No	1		0.00	0.00	0.00	0.00
21.3	Supply of FODP(Fibre Optic Distribution Panel)48 F: Indoor type,rack mounted with FCPC coupling and pig tails(DWSm Fibre)	No	1		0.00	0.00	0.00	0.00
21.4	48 V, 300 AH, maintenance free VRLA Battery set.	Set	1		0.00	0.00	0.00	0.00
21.5	SMPS based battery charger of 75A suitable for 48V VRLA battery.	No	1		0.00	0.00	0.00	0.00
21.6	48V DCDB	Nos	1		0.00	0.00	0.00	0.00
21.7	Earth Flat, Cable Tray, Foundation rail, Junction Box,.	Set	1		0.00	0.00	0.00	0.00
22	<b>SUB STATION LIGHTING (AS PER SPECIFICATION AND APPROVED DRAWINGS) (Switch yard and other street area)</b>							
22.1	<b>SWITCHYARD LIGHTING-</b> Includes supply of LED type Fixtures & Lamps of reputed make (Philips/CGL/Bajaj/Havells/Crompton) with switch gear, GI Conduit etc. (Lighting fixtures are to be fixed rigidly on the Column at a suitable height so that the required lux can be achieved.	Set	46		0.00	0.00	0.00	0.00
22.2	<b>STREET LIGHTING:</b> Includes supply of GI Tubular Poles as per Technical Specification, LED type Fixtures & Lamps of reputed make (Philips/CGL/Bajaj/Havells/Crompton) with switch gear, GI Conduit etc. (100 watt each) for Street Light. (To be provided along the roads inside the substation area).							
22.2.1	LED LIGHTING FIXTURES: of reputed make (Philips / CGL / Bajaj / Crompton / Havells) other make approved by OPTCL). (100 watt each) for Street Light.	Set	25		0.00	0.00	0.00	0.00
22.2.2	<b>GI Tubular Pole:</b> (410-SP-24: IS 2713-Part-II-1980 or latest) Length of pole- 8.5 mtrs, weight- 158 Kgs. (The GI Tubular Poles shall have provision of a GI Junction Box with suitable covers at a height of 1 mtr from the ground. The Junction Box shall have provision of fuses, bus bars, TBs for cable In & Out)	Set	25		0.00	0.00	0.00	0.00
22.3	Lighting provision for other Areas: Suitable for (a) Main Gate Lighting (2 nos of 70 Watt LED), (b) Garden Lighting (4 nos of 70W LED) with necessary post top lantern with pole , (c) Control Room Building peripheral Lighting (4 nos of 70W LED).	Lot	1		0.00	0.00	0.00	0.00
23	<b>AIRCONDITIONING</b>							
23.1	<b>AIR CONDITIONER:</b> Supply of 2T capacity Split Air Conditioning Units (Dual Inverter, five star or better type latest model) with copper condensor having remote temperature & operation control facility. AC Control Panel made of 2mm CR sheet, having suitable outgoing (one outgoing for one AC & with overload control gear) & wiring materials with 15 amp socket & plug for each unit of AC etc to complete (As per specification) for Control/SAS Room, ACDC Room Communication room, office room & Conference room . <b>The ACs in the ACDC Room(04 nos) shall run in tandem i.e 2 ACs at a time for 4 hours each. Suitable control arrangement shall be made using 24hr timer for start and stop. Similarly, for Control Room (2 ACs) and Communication Room (2ACs), one AC at a time for 4 hours each. One AC each in office rooms(2 nos), Conference Room, Transit Room.</b>	Set	12		0.00	0.00	0.00	0.00
23.2	AC for Switchyard Kiosk	Set	2		0.00	0.00	0.00	0.00

24	<b>FIRE FIGHTING SYSTEM(PORTABLE AND WHEEL MOUNTED Sets FOR CONTROL ROOM,EQUIPMENT LIKE TRANSFORMER AND OTHER AREAS AS PER TECH SPEC(REFER TS-INST TO BIDDER BEFORE DESIGN-SL NO 16-ANNEXURE - I)</b>							
24.1	FOAM TYPE-9 LTRS	Nos	4		0.00	0.00	0.00	0.00
24.2	DRY CHEMICAL POWDER(TROLLEY MOUNTED)- 22.5 KGS	Nos	4		0.00	0.00	0.00	0.00
24.3	DRY POWDER TYPE - 5 KGS	Nos	4		0.00	0.00	0.00	0.00
24.4	CO <sub>2</sub> - 4.5 KGS	Nos	10		0.00	0.00	0.00	0.00
24.5	CO <sub>2</sub> - 9 KGS	Nos	10		0.00	0.00	0.00	0.00
24.6	CO <sub>2</sub> (TROLLY MOUNTED)- 22.5 KGS	Nos	4		0.00	0.00	0.00	0.00
24.7	Water type- 9 LTRS	Nos	4		0.00	0.00	0.00	0.00
24.8	Foam type - 50 LTR	Nos	4		0.00	0.00	0.00	0.00
24.9	FIRE BUCKET (6 NOS IN EACH STAND) WITH STAND and Canopy	Set	6		0.00	0.00	0.00	0.00
25	<b>Maintenance Testing Equipment</b> (All equipment shall comply to the TS and as per list below)	Lot	1		0.00	0.00	0.00	0.00
25.1	100KV Automatic Transformer Oil Breakdown Voltage test set (Megger- OTS 100AF / Baur- DTA 100C)	Nos	1					
25.2	10KV Insulation Tester with <b>15m test lids</b> (Megger- S1-1068 / Sonel-MIC 10K1)	Nos	1					
25.3	Digital Earth Tester (Facility with soil resistivity measurement) (Megger-DET2/3 / Sonel MRU-120 / Fluke 1625)	Nos	1					
25.4	Digital Multimeter (Megger / Fluke)	Nos	2					
25.5	Digital Clamp meter (Megger/Fluke/Motwane)	Nos	1					
25.6	Leakage current clamp meter AC & DC both (30mA / 300mA / 30A / 300A) (Megger/Fluke/Kyoritsu)	Nos	1					
25.7	SF6 Gas Leakage Detector (Kika/DILO)	Nos	1					
25.8	Oil sampling Bottle- Stainless Steel, Capacity- 1 Ltr (Make- Tosin)	Nos	6					
25.9	Fibre Glass Discharge / Earth Rod: Grip up to 50mm, Min height-16ft, rubber grip, 35 sq.mm copper cable (1 set- 3 cables, 1 set of rod, carry bag) (Bemico)	Set	6					
25.10	Electrical Rubber Hand Gloves	Pairs	4					
25.11	Portable High Beam Light (rechargeable)	Nos	2					
25.12	<b>Desktop Computer: (HP/Lenovo/Dell)</b>	Set	2					
	Processor-Intel Core i5 10 <sup>th</sup> Gen or better							
	RAM- 8GB DDR4 or More							
	ROM- 512GB SSD							
	Monitor- 21.5" FHD (1920 x 1080) or higher							
	Graphics- Intel UHD							
	OS- Genuine Windows 10 or 11 Pro							
25.13	Webcam- 720P Logitech	Nos	2					
25.14	Speaker- 2 nos Stereo type	Nos	2					
25.15	UPS 600VA (APC/V Guard)	Nos	2					
25.16	Laser Printer, Black & White, Duplex printing (print, scan & copy) (HP/Canon/Epson)	Nos	1					
26	<b>Other Tools And Plants (T&amp;P'S) Requirement</b> (As Per details below). The T & P materials shall be of Taparia/Bosch/Stanley make.	lot	1		0.00	0.00	0.00	0.00
26.1	D Spanner Set (6mm – 42mm)	Set	1					
26.2	Ring Spanner Set (6mm – 42mm)	Set	1					
26.3	Box spanner set	Set	1					
26.4	Pipe Wrench 24 "	Nos	1					
26.5	Pipe Wrench 18 "	Nos	1					
26.6	Adjustable spanner -12"(slide wrench)	Nos	1					
26.7	Adjustable spanner -18"(slide wrench)	Nos	1					
26.8	Insulated cutting plier (standard size)	Nos	1					
26.9	Nose Plier (standard size)	Nos	1					
27	Screw Driver set							

27.1	12" Plain head	Nos	2					
27.2	12" star head	Nos	2					
27.3	8" Plain head	Nos	2					
27.4	6" plain head	Nos	2					
27.5	6" star head	Nos	2					
27.6	Set of screw driver cum line tester	Set	1					
27.7	Allen Key set	Set	1					
27.8	Files							
27.9	Flat File-12"	Nos	1					
28	Flat file-6"	Nos	1					
28.1	Round file- 12"	Nos	1					
28.2	Round file- 6"	Nos	1					
28.3	Hammer with Handle							
28.4	1 lb	Nos	2					
28.5	2 lb	Nos	1					
28.6	½ lb	Nos	2					
28.7	Steel Tape (Any reputed make)							
28.8	5Mtr	Nos	1					
28.9	30Mtr	Nos	1					
29	Crow bar (Any reputed make)							
29.1	5ft	Nos	2					
29.2	3ft	Nos	2					
29.3	Oil Cane (Any reputed make)	Nos	2					
29.4	Hand Drill Machine (impact drill) with key (Make-Bosch/Black & Decker)	Nos	1					
29.5	Vacuum Cleaner (at least 15L) (Make-Eureka Forbes / Black & Decker / Phillips / Karcher)	No	1					
29.6	Stand Fan (450mm sweep,1400rpm, 240V AC) (Make-Crompton, Bajaj, Havells, Almonard, Usha)	Nos	2					
29.7	De-Mineralised Plant of 30 L/Hr for Making Distilled Water for Battery Banks.	Set	1					
29.8	Self supproted cum extendable Ladder-25ft (FRP) of Adequate Height to be used for Maintenance of Equipment Inside Switchyard.	Nos	1					
29.9	Self supproted platform Ladder- 12feet (FRP) of Adequate Height to be used for Maintenance of Equipment Inside Switchyard.	Nps	1					
30	20 Ltr Storage Water Cooler (Voltas/Bluestar only)	Nos	1		0.00	0.00	0.00	0.00
31	Water Purifier (Kent/Aquaguard/	Nos	1		0.00	0.00	0.00	0.00
32	<b>Supply of Office Furniture: Godrej make (As per details below).</b>	Lot	1		0.00	0.00	0.00	0.00
32.1	<b>For Control Room, conference room, office rooms, Library, testing room etc</b>							
32.1.1	5ftX3ft executive table with drawer both sides	Nos	4					
32.1.2	4.5ft X 2.5ft Table with one side drawer	Nos	7					
32.1.3	Computer table suitable keeping monitor, CPU, UPS and printer with two nos revolving arm chair suitable for computer use.	Set	1					
32.1.4	Executive revolving, adjustable (height) chairs with arm	Nos	4					
32.1.5	Cushion fixed "S" type steel chairs with arm	Nos	16					
32.1.6	6ftX3ft conference table	Nos	1					
32.1.7	Cushion arm steel chairs for conference table purpose.	Nos	6					
32.1.8	6ft height steel almirah (only with selves) for keeping records and other valuable items.	Nos	3					
32.1.9	6ft height steel almirah with glass doors for library purpose	Nos	2					
32.1.10	6ft height (having minimum 6 lockers facility) steel cupboard with locking arrangement.	Nos	2					
32.1.11	4ft steel rack (minimum three selves) for keeping the files and other items.	Nos	8					
32.2	<b>For Communication Room</b>							
32.2.1	5ftX3ft executive table with drawer both sides	Nos	1					

32.2.2	Executive revolving, adjustable (height) chairs with arm	Nos	1					
32.2.3	Cushion fixed "S" type steel chairs with arm	Nos	2					
32.2.4	6ft height steel almirah (only with selves) for keeping records and other valuable items.	Nos	1					
33	<b>Insulating Mat:</b> Best Quality & approved make (Confirming to IS:15652:2006) to be kept in front of all panels, boards etc.(2000X1000X3mm Size)	Nos	37		0.00	0.00	0.00	0.00
34	<b>INDOOR LIGHTING OF STORE SHED, STORE ROOM &amp; VEHICLE PARKING:</b> It includes supply of LED Luminaire(Philips/CGL/Bajaj/Havells/ Crompton) with switch gear, Conduit (Polycab, Finolex, V-Guard), modular type switches (Legrand/Schneider/ Havells/ Anchor/L & T/Cona), copper wires (Finolex / Havells / KEI/ RR Kabels / Polycab),power sockets with switches & other required materials for succesful illumination of the area/rooms. (No. of LED Lighting fixtures are to be calculated based on the illumination design considering the required lux level indicated in the technical spec & fixing of the same rigidly on the suitable height <del>either ceiling &amp; wall as required</del> )	Lot	1		0.00	0.00	0.00	0.00
35	<b>CCTV:</b> Supply, Installation, Commissioning, Testing for IP Based CCTV Surveillance System (Server Based approach) with 4TB Hard Disk, Day/Night Cameras for Control Room, entire Switchyard areas covering the boundaries, entry and exit points of the Sub-Station, suitable for 360 degree movement with all necessary hardware fittings for monitoring and surveillance of entire grid s/s. The CCTV system shall be able to be integrated with the SAS system.  Numbers of such cameras (each type of camera viz. PTZ, Bullet & Dome) and other hardware/ accessories are to be calculated as per the standard practice & its installations at the strategic locations. Tentative requirement of cameras: (a) Switchyard Area: 03 nos. PTZ cameras. (b) Control room Building: (i) MCCDB (AC & DC Room):01 No. (Dome Camera), (ii) Control Room: 01 No. (Dome Camera) (iii) Main Entrance of Control Room: 01 No. (Bullet Camera)	Lot	1		0.00	0.00	0.00	0.00
<b>A</b>	<b>TOTAL OF SUBSTATION-2A (SUPPLY)</b>							<b>0.00</b>

SR. No.	DESCRIPTION OF ITEMS SUPPLY OF MANDATORY SPARES FOR THE FOLLOWING EQUIPMENTS. (As per Technical Specification)	Unit	Qty	BASIC PRICE PER UNIT (Taxable Value) In Rs	CGST @ 9% PER UNIT (INTRA- STATE)	OGST @ 9% PER UNIT (INTRA- STATE)	TOTAL PRICE PER UNIT ( In Rs)	TOTAL PRICE FOR THE QUANTITY
1	145 KV, 800-400-200 A, 31.5 KA, 4 core Single Phase Current Transformer (3 Nos PS CLASS & 1 No. 0.2s CLASS)	Nos	2		0.00	0.00	0.00	0.00
2	<b>145 KV, 1250A, 31.5KA, ISOLATORS</b>							
2.1	Fixed & Moving Contact Assembly set	Set	1		0.00	0.00	0.00	0.00
3	120 KV Metal Oxide Surge Arrester, 10 KA, Class III	Nos	2		0.00	0.00	0.00	0.00
4	145 KV, 2 CORE, Single Phase IVT	Nos	2		0.00	0.00	0.00	0.00
5	132 KV Bus Post Insulator	Nos	2		0.00	0.00	0.00	0.00
6	145KV, 3150A, 40KA, SF6, CIRCUIT BREAKER							
6.1	Density Monitoring System	Set	1		0.00	0.00	0.00	0.00
6.2	Closing Coil	Nos	4		0.00	0.00	0.00	0.00
6.3	Tripping Coil	Nos	4		0.00	0.00	0.00	0.00
6.4	SF6 Gas Filling Device	Nos	1		0.00	0.00	0.00	0.00
7	<b>33KV Current Transformer</b>							
7.1	36 KV,800-400-200,25KA,3 CORE SINGLE PHASE CURRENT TRANSFORMER(2 NOS PS CLASS & 1 NO. 0.2s CLASS)	Nos	3		0.00	0.00	0.00	0.00
	36 KV, 800-400-200, 25KA, 4 CORE SINGLE PHASE CURRENT TRANSFORMER (3 NOS PS CLASS & 1 NO. 0.2s CLASS)	Nos	3		0.00	0.00	0.00	0.00
8	<b>36 KV,1250A,25KA,ISOLATORS</b>							

8.1	Fixed & Moving Contact Assembly set	Set	1		0.00	0.00	0.00	0.00
9	30 KV, Metal Oxide Surge Arrester, 10KA, class II	Nos	3		0.00	0.00	0.00	0.00
10	36 KV, 2 Core Single Phase IVT (1 core 3P & 1 core 0.2s)	Nos	1		0.00	0.00	0.00	0.00
11	<b>36KV, 1250A,25KA,VACUUM CIRCUIT BREAKER</b>							
11.1	One complete Pole Assembly of Circuit Breaker in dust proof and safe packing.	Nos	3		0.00	0.00	0.00	0.00
11.2	Closing Coil	Nos	4		0.00	0.00	0.00	0.00
11.3	Tripping Coil	Nos	4		0.00	0.00	0.00	0.00
12	33 KV Bus Post Insulators	Nos	3		0.00	0.00	0.00	0.00
13	<b>BUS BAR &amp; CIRCUIT MATERIALS</b>							
13.1	<b>132KV TENSION &amp; SUSPENSION INSULATORS</b>							
13.1.1	120KN Porcelain Anti Fog type Disc Insulators	Nos	78		0.00	0.00	0.00	0.00
13.1.2	90KN Porcelain Anti Fog type Disc Insulators	Nos	16		0.00	0.00	0.00	0.00
13.2	<b>33KV TENSION &amp; SUSPENSION INSULATORS</b>							
13.2.1	120KN Porcelain Anti Fog type Disc Insulators	Nos	26		0.00	0.00	0.00	0.00
13.2.2	90KN Porcelain Anti Fog type Disc Insulators	Nos	5		0.00	0.00	0.00	0.00
14	ACSR CONDUCTOR							
14.1	ACSR Moose Conductor	Mtrs	250		0.00	0.00	0.00	0.00
14.2	ACSR Dog Conductor	Mtrs	100		0.00	0.00	0.00	0.00
15	Clamps & Connectors for 132 KV & 33 KV (Each type Three Nos) for SI No- 14.3.8 to 14.3.29 of Substation Sypply section. The exact qty of each item under this shall be mentioned by the agency and shall be incorporated in the P.O.	Set	1		0.00	0.00	0.00	0.00
16	BATTERY CHARGER							
16.1	One complete set of Electronic cards of the Battery Charger for 300AH, 48V VRLA Battery Set. The exact qty of each item under this shall be mentioned by the agency and shall be incorporated in the P.O.	Set	1		0.00	0.00	0.00	0.00
16.2	One complete set of Electronic cards of the Battery Charger for 350AH, 220V Plante type Battery Set. The exact qty of each item under this shall be mentioned by the agency and shall be incorporated in the P.O.	Set	1		0.00	0.00	0.00	0.00
17	Spares for Protection relay Panels (As installed in C/R Panels)							
17.1	Distance Protection Relay	Nos	1		0.00	0.00	0.00	0.00
17.2	Differential Protection Relay	Nos	1		0.00	0.00	0.00	0.00
17.3	BCPU	Nos	1		0.00	0.00	0.00	0.00
17.4	Other Auxiliary Relays (Each 1 No. of Different Type) the exact qty of each item under this shall be mentioned by the agency and shall be incorporated in the P.O.	Set	1		0.00	0.00	0.00	0.00
<b>B</b>	<b>TOTAL SUPPLY OF MANDATORY SPARES FOR SUB-STATION</b>							<b>0.00</b>
<b>C</b>	<b>TOTAL OF SUPPLY COMPONENT OF THE WORKS CONTRACT FOR SUBSTATION AND MANDATORY SPARE (A+B)</b>							<b>0.00</b>
<b>PART-II, SCHEDULE-2A(FOR LINE)</b>								
SI No	DESCRIPTION OF ITEMS(SCHEDULE-2A-LINE) SUPPLY OF FOLLOWING EQUIPMENT & MATERIALS (As per Technical Specification)	UNITS	QUANTITY	BASIC PRICE PER UNIT (Taxable Value) In Rs	CGST @ 9% PER UNIT (INTRA- STATE)	OGST @ 9% PER UNIT (INTRA- STATE)	TOTAL PRICE PER UNIT ( In Rs)	TOTAL PRICE FOR THE QUANTITY
1	SUPPLY of Following type tested Lattice type Galvanized steel tangent / Angle tower with stubs and cleats , different type of G.I HT Nuts & Bolts, washer, spring washer for the towers ,hanger and all accessories, tower super structure complete including step bolts. Supply of black bituminous paint for three coats up to a height of 500mm above the cooping(legs & bracing members). All Supply should confirm to the Technical Specification.							
1.1	PA TYPE TOWERS (Nominal unit weight 3.484 MT)- 12 Nos	MT	41.81					
1.1.1	+3 EXTENSION to PA type Towers (Nominal unit weight- 0.637 MT)-8 Nos	MT	5.10					
1.1.2	+6 EXTENSION to PA type Towers (Nominal unit weight- 1.346 MT)-0 Nos	MT	0.00					
1.2	PB TYPE TOWERS (Nominal unit weight 5.102 MT)-7 Nos	MT	35.71					

1.2.1	+3 EXTENSION to PB type Towers (Nominal unit weight 1.038 MT)-3 Nos	MT	3.11					
1.2.2	+6 EXTENSION to PB type Towers (Nominal unit weight- 1.152 MT)-0 Nos	MT	0.00					
1.3	<b>PC TYPE TOWERS (Nominal unit weight- 6.174 MT)-11 Nos</b>	MT	67.91					
1.3.1	+3 EXTENSION to PC type Towers (Nominal unit weight- 1.15 MT)-1 Nos	MT	1.15					
1.3.2	+6 EXTENSION to PC type Towers (Nominal unit weight- 2.416 MT)-2 Nos	MT	4.83					
1.4	<b>UR TYPE TOWERS (Nominal unit weight- 13.348 MT)-0 Nos</b>	MT	0.00					
1.4.1	+6 mtr Extension to UR type Tower (Nominal Weight- 4.147 MT)-0 Nos	MT	0.00					
1.5	<b>OC TYPE TOWERS (Nominal unit weight- 9.967 MT)-0 Nos</b>	MT	0.00					
1.5.1	+15 mtr Extension to OC type Tower (nominal Weight- 0 MT)-0 Nos	MT	0.00					
1.4	<b>TEMPLATES</b>							
1.4.1	PA (Nominal unit weight- 0.492 MT)(1 nos.)	MT	0.49					
1.4.2	PB (Nominal unit weight- 0.624 MT)(1 no.)	MT	0.62					
1.4.3	PC (Nominal unit weight- 0.876 MT)(1 no.)	MT	0.88					
1.4.4	UR (Nominal unit weight-1.476 MT)(0 nos)	MT	0.00					
1.4.5	OC (Nominal unit Weight- 1.006 MT)(0 Nos)	MT	0					
1.5	<b>WEIGHT OF THE STRUCTURES &amp; Templates including Tower Stub</b>	MT	<b>161.62</b>		0.00	0.00	0.00	0.00
1.7	<b>Weight of different type G.I Nuts and Bolts</b>	MT	<b>7.00</b>		0.00	0.00	0.00	0.00
<b>2.0</b>	<b>Supply of the following tower accessories as per technical specification and as directed by the engineer in charge.</b>							
2.1	EARTHING DEVICE	Nos	30		0.00	0.00	0.00	0.00
2.2	DANGER BOARD	Nos	30		0.00	0.00	0.00	0.00
2.3	NUMBER PLATE	Nos	30		0.00	0.00	0.00	0.00
2.4	PHASE PLATE	Nos	180		0.00	0.00	0.00	0.00
2.5	BIRD GUARD	Nos	72		0.00	0.00	0.00	0.00
2.6	ANTICLIMBING DEVICE	Nos	30		0.00	0.00	0.00	0.00
2.7	CIRCUIT PLATE	Nos	60		0.00	0.00	0.00	0.00
2.8	COUNTERPOISE EARTHING	Nos	0		0.00	0.00	0.00	0.00
<b>3.0</b>	<b>Supply of following POWER CONDUCTORS in the proposed 132 kV lines with provision for 1.5 % sag and wastage as per the technical specification and as per the instruction of the engineer in charge.</b>							
3.1	<b>ACSR PANTHER CONDUCTOR</b>	km	53.01		0.00	0.00	0.00	0.00
<b>4.0</b>	<b>POWER CONDUCTOR ACESSORIES</b>							
4.1	For ACSR PANTHER							
4.1.1	VIBRATION DAMPER	Nos	576		0.00	0.00	0.00	0.00
4.1.2	MID SPAN JOINT	Set	24		0.00	0.00	0.00	0.00
4.1.3	REPAIR SLEEVE	Set	20		0.00	0.00	0.00	0.00
4.1.4	P A ROD FOR ACSR PANTHER	Set	72		0.00	0.00	0.00	0.00
4.1.5	PG CLAMP FOR ACSR PANTHER	Set	0		0.00	0.00	0.00	0.00
<b>5.0</b>	<b>Supply of the following Long Rod type Porcilain insulators for 132KV as per the technical specification and as per the instruction of the Engineer in charge.</b>							
5.1	120KN Porcelain Longrod Insulators	Nos	336		0.00	0.00	0.00	0.00
5.2	90KN Porcelain Longrod Insulators	Nos	108		0.00	0.00	0.00	0.00
<b>6.0</b>	<b>Supply of the following hard ware fittings suitable for ACSR Panther conductors as per the technical specification.</b>							
6.1	For ACSR PANTHER							
6.1.1	Single suspension Hard wares fittings suitable for 90 KN Long Rod insulator.	Nos	36		0.00	0.00	0.00	0.00
6.1.2	Double suspension Hard wares fittings suitable for 90 KN Long Rod insulator.	Nos	36		0.00	0.00	0.00	0.00
6.1.3	Single tension Hard wares fittings suitable for 120 KN Long Rod insulator.	Nos	108		0.00	0.00	0.00	0.00
6.1.4	Double tension Hard wares fittings suitable for 120 KN Long Rod insulator.	Nos	60		0.00	0.00	0.00	0.00
6.1.5	"D" Shackle	Nos	216		0.00	0.00	0.00	0.00
6.1.6	Hanger	Nos	72		0.00	0.00	0.00	0.00
6.1.7	U'-Bolt.	Nos	12		0.00	0.00	0.00	0.00

7	<b>Supply of OPGW Fibre Optic Cable &amp; Hard ware for Speech , data &amp; protection</b>							
7.1	48 fibre (DWSM) OPGW fibre optic cable.	Km	8.705		0.00	0.00	0.00	0.00
7.2	OPGW hardware set like suspension Assembly,Tensin Assembly(Dead end assembly, Pass through assembly) ,Vibration Damper,Down Lead Clamp Assemblies for 24/48 Fibre(DWSM) OPGW,Joint Box	Set	1.00		0.00	0.00	0.00	0.00
8	High Resolution Binocular(NICON COOLPIX P900)	Nos	1.00		0.00	0.00	0.00	0.00
<b>D</b>	<b>TOTAL OF LINE(SCHEDULE-2A)</b>							<b>0.00</b>
<b>E</b>	<b>Total of Supply (Schedule- 2A-SS+2A-TL)(C+D)</b>							<b>0.00</b>

**NOTE**

- 1 Before filling up rate/amount etc. in the schedules bidders are requested to read carefully the instruction given in Vol-I of Bidding Document.
- 2 Bidders are required to fill up only blue shaded cells.
- 3 Bidders are requested to not leave any column blank. If any column is left blank it shall be considered that amount against those items are included in any other item and the total amount for that
- 4 Basic Price (taxable value) for supply includes Packing & Forwarding, freight & insurance etc. excluding GST with full Input Tax Credit)

PACKAGE -CPC-55/2022-23 132/33 KV S/S AT JHARBANDH & ASSOCIATED 132 KV LILO LINE (ERECTION)			ODISHA POWER TRANSMISSION CORPORATION LTD					
			NAME OF THE WORK:- Construction of 2 x 20 MVA, 132/33 KV Grid Sub-station with SAS , Jharbandh at Sankri and associated 132 KV LILO line on 132 KV Padampur - Nuapada Line (Approx. Line Length- 8.705 Kms.)					
			NOTICE INVITING TENDER-NIT NO. -CPC-55/2022-23 & BID DOCUMENT No.:Sr. G.M- CPC- e-Tender- Jharbandh S/S - 55/2022-23					
			PRICE BID FOR WORKS CONTRACT (SAC CODE - 995423): SCHEDULE - VII-B - PART -II ERECTION COMPONENT OF THE WORKS CONTRACT-( PACKAGE- 55/2022-23)					
			NAME OF BIDDER					
ERECTION, INSTALLATION, TESTING & COMMISSIONING SUBSTATION			GST					
Sl. No.	DESCRIPTION OF ITEMS(SCHEDULE-VIIB-SS) ERECTION, INSTALLATION, TESTING & COMMISSIONING OF FOLLOWING EQUIPMENTS (As per Technical Specification)	UNIT OF MEASUREMENT	Qty	BASIC PRICE PER UNIT (Taxable Value) In Rs	CGST @ 9% PER UNIT (INTRA-STATE)	OGST @ 9% PER UNIT (INTRA-STATE)	TOTAL PRICE PER UNIT ( In Rs)	TOTAL PRICE FOR THE QUANTITY
1	2	3	4	5	6= {5*9%}	7= {5*9%}	8= {5+6+7}	9= {8*4}
A	<b>ELECTRICAL WORKS</b>							
	<b>SUB-STATION</b>							
1	145 KV, 800-400-200 A, 31.5 KA, 4 core Single Phase Current Transformer (3 Nos PS CLASS & 1 No. 0.2s CLASS)	Nos	15		0.00	0.00	0.00	0.00
2	145 KV, 1250A, 31.5KA, ISOLATORS							
2.1	Single Isolator without Earth Switch	Nos	9		0.00	0.00	0.00	0.00
2.2	Double Isolator with Earth Switch	Nos	2		0.00	0.00	0.00	0.00
2.3	Double Isolator without Earth Switch	Nos	2		0.00	0.00	0.00	0.00
4	120 KV Metal Oxide Surge Arrester, 10 KA, Class III with insulated base supports and surge counter	Nos	12		0.00	0.00	0.00	0.00
5	145 KV, 2 Core, Single Phase IVT	Nos	9		0.00	0.00	0.00	0.00
6	132 KV Bus Post Insulator	Nos	18		0.00	0.00	0.00	0.00
7	145KV, 3150A, 40KA, SF6 Circuit Braker with supporting Structure. Facilities for integration with SAS as per the site requirement.	Nos	5		0.00	0.00	0.00	0.00
7.1	36 KV,800-400-200,25KA,3 CORE SINGLE PHASE CURRENT TRANSFORMER(2 NOS PS CLASS & 1 NO. 0.2s CLASS)	Nos	18		0.00	0.00	0.00	0.00
7.2	36 KV, 800-400-200, 25KA, 4 CORE SINGLE PHASE CURRENT TRANSFORMER (3 NOS PS CLASS & 1 NO. 0.2s CLASS)	Nos	6		0.00	0.00	0.00	0.00
8	<b>36 KV,1250A,25KA,ISOLATORS</b>							
8.1	Single Isolator without Earth Switch	Nos	18		0.00	0.00	0.00	0.00
8.2	Single Isolator with Earth Switch	Nos	5		0.00	0.00	0.00	0.00
8.3	Beam Mounted Single Isolator without Earth Switch	Nos	4		0.00	0.00	0.00	0.00
9	30 KV, Metal Oxide Surge Arrester, 10KA, class II with insulated base supports and surge counter	Nos	27		0.00	0.00	0.00	0.00
10	36 KV, 2 Core Single Phase IVT (1 core 3P & 1 core 0.2s)	Nos	3		0.00	0.00	0.00	0.00
11	36 KV, 1250A, 25KA, Vacuum Circuit Breaker with supporting Structure. Facilities for integration with SAS as per the site requirement.	Nos	8		0.00	0.00	0.00	0.00
12	33 KV Bus Post Insulator	Nos	28		0.00	0.00	0.00	0.00
13	<b>BUS BAR STRINGING:</b> Supply of labour, T&P and other necessary arrangements for stringing of bus bar conductors, hoisting of single or double insulator strings, Single or Double Hard-wares Fittings, Clamp & connectors, as per requirements, Jumpers, connections to Equipments, testing, commissioning etc as per the instruction of Engineer-in charge							
13.1	Single conductor/Phase	Mtr	2500		0.00	0.00	0.00	0.00
13.2	Twin Conductor /Phase	Mtr	500		0.00	0.00	0.00	0.00

13.3	Single ACSR Dog conductor / phase (including supply of sockets)	Mtr	100		0.00	0.00	0.00	0.00
14	<b>EARTH SPIKES &amp; IT'S HARDWARES &amp; FITTING</b>							
14.1	FOR 132KV SIDE : 26 Nos @ 7 Mtrs with two nos of earth risers from the Main earth mat connected to its bottom.	Set	26		0.00	0.00	0.00	0.00
14.2	FOR 33 KV SIDE: 22 Nos @ 5 Mtrs with two nos of earth risers from the earth mat connected to its bottom.	Set	22		0.00	0.00	0.00	0.00
15	<b>SUB-STATION EARTH-MAT</b>							
15.1	Substation earth-mat: (a) The Soil resistivity for the substation area is to be measured and approved by OPTCL. (b) The Earth Mat design and layout is to prepared based on the soil resistivity and approved by OPTCL. (c) Laying of earth-mat conductors of Hot dip galvanized flats of size 75X10mm, excavation of earth for laying of earth flat as per approved design & drawing, welding/jointing, application of two coats of bituminous Paint, wrapping of HT Tape etc of ground conductors & etc with back filling and good compaction. The spacing between the earth conductor not more than 5 Mtrs (both way) and to be buried at depth of 700mm from the finished ground level. (d) 40 mm MS solid rod: Provision of grounding driven 40 mm MS Solid rod, along the periphery of the switchyard i.e near the fencing. (e) 50 mm,3 mtr long Heavy duty perforated GI pipes: for treated earth pits (with details of treatment as per IS). (f) Provision of water taps inside the switch yard areas and peripheral for treated earth pit for watering the treated earth pits. Note: The no. of treated and un treated earth pits are to be done as per the practice and as indicated in the drawing for different equipment. (g) The erection of risers of size 50 x 6 mm / 75 x 10 mm GI flats including welding/jointing, application of two coats of bituminous Paint, wrapping of HT Tape etc as per requirement. This is as per approved drawing and specification.							
15.1.1	75x10 MM GI FLAT: The flat is also to be laid from the earth mat up to the foundation level.	Mtrs	4000		0.00	0.00	0.00	0.00
15.1.2	50x6 MM GI FLAT: for Raiser from the foundation level to equipment, structure, columns and up to the bottom of spikes etc.). Each equipment strstructure & Columns shall be connected to earth at two separate points.	Mtrs	4200		0.00	0.00	0.00	0.00
15.1.3	40 MM MS Rod for Non-Treated earth pit electrode shall be connected to the main earth mat.	Nos	72		0.00	0.00	0.00	0.00
15.1.4	50MM GI Pipe for Treated Earth Pit: Electrode with chamber & cover, shall be connected to the main earth mat. The resistance of each earth pit shall be recorded in presence of the Engineer In charge.	Nos	163		0.00	0.00	0.00	0.00
16	G.I Cable Trays including support GI angle suitable for different sections i.e. Section: 2-2, 3-3 & 4-4 along with its accessories as per TS.							
16.1	G.I Cable Trays(size: 450x75x2500mm)	Mtrs	750		0.00	0.00	0.00	0.00
16.2	G.I Cable Trays(size: 300x75x2500mm)	Mtrs	1000		0.00	0.00	0.00	0.00
16.3	G.I Cable Trays(size: 150x75x2500mm)	Mtrs	750		0.00	0.00	0.00	0.00
16.4	Support G. I angle 50x50x6 mm for cable tray	MT	1.5		0.00	0.00	0.00	0.00
17	<b>SWITCH YARD STRUCTURES COLUMN &amp; BEAM (LATTICE TYPE) FOR 132/33 KV CLASS INCLUDING FOUNDATION BOLTS &amp; NUTS.</b>							
17.1	<b>DIFFERENT TYPES OF COLUMNS WITH DETAILS</b>							
17.1.1	T1S - 132 KV(Nominal unit wt- 1.2 MT) =20 Sets	MT	24.00					
17.1.2	T4S - 132KV (Nominal unit wt- 0.95 MT) =6 Sets	MT	5.70					
17.1.3	T8S - 33KV(Nominal unit wt- 0.83 MT) = 10 Sets	MT	8.30					

17.1.4	T9S - 33KV(Nominal unit wt- 0.6 MT)=12 Sets	MT	7.20					
17.2	<b>DIFFERENT TYPE OF BEAMS WITH DETAILS</b>							
17.2.1	G1 - 132 KV(Nominal unit wt- 0.62 MT) = 20 Sets	MT	12.40					
17.2.2	G2 - 132 KV(NOMINAL UNIT WT- 0.9 MT) =4 Sets	MT	3.60					
17.2.3	G6 - 33KV (NOMINAL UNIT WT- 0.53 MT) = 4 Sets	MT	2.12					
17.2.4	G4 - 33KV(NOMINAL UNIT WT- 0.4 MT) =8 Sets	MT	3.20					
17.2.5	G4X - 33KV (NOMINAL UNIT WT- 0.52 MT) =4 Sets	MT	2.08					
17.3	<b>TOTAL WEIGHT OF COLUMN &amp; BEAM</b>	MT	<b>68.60</b>		0.00	0.00	0.00	0.00
17.4	<b>SWITCH YARD EQUIPMENT STRUCTURES (LATTICE TYPE) FOR 132/33 KV CLASS INCLUDING FOUNDATION BOLTS &amp; NUTS.</b>							
17.4.1	Structure for 132KV CT (Unit Weight - 214.546 Kg) =15 Nos	MT	3.22					
17.4.2	Structure for 132KV IVTs (Unit Weight - 231.195 Kg) =9 Nos	MT	2.08					
17.4.3	Structure for 132KV Surge Arrester (Unit Weight - 179.893 Kg) =12 Nos	MT	2.16					
17.4.4	132 KV Single Isolator without Earth Switch (Unit weight - 658.767 Kg) = 9 Nos	MT	5.93					
17.4.5	132 KV Double Isolator without Earth Switch (Unit Weight - 979.10 Kg) = 2 Nos	MT	1.96					
17.4.6	132 KV Double Isolator with Earth Switch (Unit Weight - 1120.559 Kg) = 2 Nos	MT	2.24					
17.4.7	Structure for 132KV BPI (Unit Weight - 309.883 Kg) =18 Nos	MT	5.58					
17.4.8	Structure for 33KV CT (Unit Weight - 148.80 Kg) =18 Nos	MT	2.68					
17.4.9	Structure for 33KV IVTS (Unit Weight - 124.336 Kg) =3 Nos	MT	0.37					
17.4.10	Structure for 33KV LAs (Unit Weight - 148.8 Kg) =6 Nos	MT	0.89					
17.4.11	33 KV Single Isolator without Earth Switch (Unit weight - 294.893 Kg) = 18 Nos	MT	5.31					
17.4.12	33 KV Single Isolator with Earth Switch(Unit weight - 324.8 Kg) = 5 Nos	MT	1.62					
17.4.13	Structure for 33KV BPI (Unit Weight - 148.80 Kg) =22 Nos	MT	3.27					
17.4.14	Structure for 33KV HG Fuse (Unit Weight - 245 Kg) =2 Nos	MT	0.49					
17.4.12	<b>TOTAL WEIGHT OF EQUIPMENT STRUCTURE</b>	MT	<b>37.80</b>		0.00	0.00	0.00	0.00
17.5	<b>Total weight of GI Nuts and bolts for the above Column, Beam &amp; equipment structures and including different size of plain washer / spring washer for above structures.</b>	MT	<b>5.32</b>		0.00	0.00	0.00	0.00
18	<b>Laying of Power and Control Cable</b> including fixing of cable with terminal connections both at equipments and control panels with supply and fixing of lugs, Ferrules, clamps, connectors, glands, fixing of cable trays/ laying in ground in HDPE pipes, including supply of N & B, Link plates, Cable Markers, PVC pipes Bends, Plaster of Paris, M-Seal compounds etc for sealing purpose and all necessary arrangements, laying of Earthing Flats, earthing, laying of Cable trench slabs and chequered plate etc for the cable trench, Cable scheduled and cable diagram to be prepared by the contractor							
18.1	<b>POWER CABLES, 1.1KV, XLPE / PVC FRLS ARMoured, ALUMINIUM CONDUCTOR</b> (As per Specification)							
18.1.1	XLPE 3.5 CX300 mm2	Mtrs	300		0.00	0.00	0.00	0.00
18.1.2	XLPE 3.5 CX185 mm2	Mtrs	300		0.00	0.00	0.00	0.00
18.1.3	XLPE 3.5 CX120 mm2	Mtrs	200		0.00	0.00	0.00	0.00
18.1.4	PVC 3.5 CX70 mm2	Mtrs	200		0.00	0.00	0.00	0.00
18.1.5	PVC 3.5 CX35 mm2	Mtrs	1800		0.00	0.00	0.00	0.00
18.1.6	PVC 4 CX 16 mm2	Mtrs	700		0.00	0.00	0.00	0.00
18.1.7	PVC 4 CX 6 mm2	Mtrs	1500		0.00	0.00	0.00	0.00
18.1.8	PVC 2CX 6 mm2	Mtrs	2000		0.00	0.00	0.00	0.00
18.2	<b>CONTROL CABLES, 1.1 KV, PVC ARMoured, STRANDED COPPER FRLS</b> (As per specification)							
18.2.1	2 CX 2.5 mm2	Mtrs	1500		0.00	0.00	0.00	0.00

18.2.2	4 CX 2.5 mm2	Mtrs	12000		0.00	0.00	0.00	0.00	
18.2.3	5 CX 2.5 mm2	Mtrs	1500		0.00	0.00	0.00	0.00	
18.2.4	7CX 2.5 mm2	Mtrs	4500		0.00	0.00	0.00	0.00	
18.2.5	10 CX 2.5 mm2	Mtrs	4000		0.00	0.00	0.00	0.00	
18.2.6	12 CX 2.5 mm2	Mtrs	3500		0.00	0.00	0.00	0.00	
18.2.7	16 CX 2.5 mm2	Mtrs	500		0.00	0.00	0.00	0.00	
18.2.8	19 CX 2.5 mm2	Mtrs	1500		0.00	0.00	0.00	0.00	
18.3	<b>SINGLE CORE 1.1KV, PVC UN-ARMoured COPPER CONDUCTOR:</b> for connection from Battery Set to Battery Charger and from Battery Charger to DCDB on cable tray / HDPE pipe/PVC pipe etc								
18.3.1	1CX 120 mm2 BAT TO BAT CHARGER & CHARGER TO DCDB	Mtrs	200		0.00	0.00	0.00	0.00	
19	<b>132/33 KV, 20 MVA Transformer:</b> Receiving the Transformers and its accessories & dragging and Installing on the plinth and placing in position, Erection of accessories of the Transformers, erection of NCTs on the Transformers, Earthing as per Standard (Including Supply of Materials), Vacuum Treatment of the tank and winding, Oil Filtration (Including Supply of Vacuum cum Oil Filter Machine), Supply & Laying of all types of Control & Power Cables Pertaining to Transformers, Testing and Commissioning including all tests of the Oil as per stipulation in the Standard Approved Testing Laboratory and as per the instruction of the Engineer in Charge. This include all related works for Erection, Testing and Commissioning of the Power Transformers/Auto Transformers. (Contractor to arrange Power Supply for Filtration And Vacuum Treatment works). It also includes supply of all materials required for erection Including T & P's.			Nos	2	0.00	0.00	0.00	0.00
20	<b>FIRE FIGHTING:</b> Erection, Testing and commissioning of the NIFPES system complete with all accessories for successful operation including demonstration of the NIFPES operational procedures for the 20 MVA, 132/33 KV Power Transformer as per the Technical Specification & latest standard.			Lot	2	0.00	0.00	0.00	0.00
19	<b>Erection, Testing and commissioning of Station Transformer complete with all accessories &amp; Other materials for meeting the auxiliary supply of the substation as per technical Specification.</b>								
19.1	Station Transformer - 33KV/433V, 250 KVA (As per specification)	Nos	2		0.00	0.00	0.00	0.00	
19.2	HG Fuse set- for 33kV side of the station transformer including the mounting insulators, channels complete in all respect (each set comprises three single HG fuse)	Set	2		0.00	0.00	0.00	0.00	
20	<b>Substation Automation System(IEC 61850):</b> Installation, Testing and commissioning of the Digital Substation equipment including imparting training (on Job/site) to atleast 6 Engineers of OPTCL regarding the softwares used, configuration of the devices & switches, testing, probable faults & tracing procedures. <b>The items from Sl. No-23.1 to 23.5.2 shall be considered complete only when the firm shall submit a successful training completion certificate from the nominated engineers. The firm shall intimate the training schedule to OPTCL sufficiently before commencing the training for</b>								

20.1	SUBSTATION AUTOMATION SYSTEM (IEC 61850) Gateway Panel: for Sub-Station Automation (in PRP on FO as per the specification & indicative drawing) system (for All 132 & 33 KV side bays) and with other accessories, comprising: 1. HMI servers (Main & Stand By) 2. DR PC 3. Redundant Gateway 4. Color Laser jet Printer-1Nos 5. Dot Matrix Printer-1Nos 6. Ethernet Switches (with 20% spares Port) for process bus & station bus 7. LIU 8. Multimode glass fibre Double jacket armoured optical cables 9. Red boxes 10. Inverters - 3 KVA (Main & Stand by) 11. Furniture (Operator desk 1 Nos & Chair-6Nos) 12. <b>Full HD LED TV</b> for display etc as per TS, including all type of accessories & special cables like F.O patch cord & armoured FO cables of adequate length etc required for the system in all respect as per latest IEC 61850- ED-2 standard & as per technical specification.	Lot	1		0.00	0.00	0.00	0.00
20.2	Aux BCU for station auxiliary system (Station AC, station DC, Lighting, Firefighting, DG set, Air conditioning etc): as per requirement compliant to IEC 61850 - ED-2 protocol with PRP on FO. Power Supply 220V DC.	Nos	1		0.00	0.00	0.00	0.00
20.3	GPS System with IRIG-B/SNTP/PTP with VDU (Clock)	Nos	1		0.00	0.00	0.00	0.00
20.4	<b>132KV Level Protection Panel- Single Panel Twin Bay Type (2 Bays in One Panel) with IEC 61850-ED-2 PRP on FO</b>							
20.4.1	132KV feeder Protection Panel: Feeder-1 & 2 in one panel Numerical Distance protection relay, BCPU and other auxiliary relays as per requirement compliant to IEC 61850-ED-2 protocol with PRP on FO. Power Supply 220V DC.	Nos	1		0.00	0.00	0.00	0.00
20.4.2	132KV Transformer Protection Panel: Transformer-1 & 2 in one panel Numerical Differential protection relay, BCPU and other auxiliary relays as per requirement compliant to IEC 61850-ED-2 protocol with PRP on FO. Power Supply 220V DC.	Nos	1		0.00	0.00	0.00	0.00
20.4.3	132KV Buscoupler Protection Panel: BCPU and other auxiliary relays as per requirement compliant to IEC 61850-ED-2 protocol with PRP on FO. Power Supply 220V DC.	Nos	1		0.00	0.00	0.00	0.00
20.5	<b>33KV Level Protection Panel- Single Panel Twin Bay Type (2 Bays in One Panel) with IEC 61850-ED-2 PRP on FO</b>							
20.5.1	33KV Feeder Protection Panel: with BCPU & with other Auxiliary relays as required as per the scheme compliant to IEC 61850 - ED-2 protocol with PRP on FO. Power Supply 220V DC.  33KV Buscoupler Protection Panel: with BCPU & with other Auxiliary relays as required as per the scheme compliant to IEC 61850-ED-2 protocol with PRP on FO. Power Supply 220V DC.  Note: 5 Nos. of Line Feeder Bays and 1 Bus coupler to be considered in 3 Panels.	Nos	3		0.00	0.00	0.00	0.00
20.5.2	33KV Transformer protection panel: with BCPU, numerical REF & with other Auxiliary relays as required as per the scheme, compliant to IEC 61850-ED-2 protocol with PRP on FO. Power Supply 220V DC.  Note: 2 Nos. of Transformer Feeder Bays to be considered in one Panel	Nos	1		0.00	0.00	0.00	0.00
21	<b>AC &amp; DC SYSTEM (Suitable for Sub- station Automation System)</b>							
21.1	<b>AC SYSTEM</b>							
21.1.1	MAIN AC DB ( Indoor Type): MAIN DB-1, MAIN DB-2 with B/C. The incomer & Bus coupler shall have 800 A, 50KA, drawout type with Numerical SAS compliant Relay (O/C, E/F, U/V, O/V protection).The ACDB shall be suitable for automatic switching OFF & ON during power failure. Facilities for integration with SAS as per the site requirement.	Set	1		0.00	0.00	0.00	0.00

21.1.2	ACDB (Indoor Type): AC DB-1, AC DB-2 with B/C. Incomer-1 & 2, Bus coupler and DG set Incomer-1 & 2 shall have 400A Motorised MCCB for automatic operation. The ACDB shall be suitable for automatic switching OFF & ON , auto start of DG set etc during power failure. Facilities for integration with SAS as per the site requirement.	Set	1		0.00	0.00	0.00	0.00
21.1.3	Main Lighting Distribution Board (Indoor Type): Having 250A MCCB for Incomers with source-1, Source-2 & Bus coupler.	Set	1		0.00	0.00	0.00	0.00
21.1.4	Indoor Lighting Distribution Board (Indoor Type)	Set	1		0.00	0.00	0.00	0.00
21.1.5	Emergency Lighting Distribution Board (Outdoor type): The ELDB should be supplying to 20% of switchyard lights, each of 132KV and 33KV Switchyard.	Set	1		0.00	0.00	0.00	0.00
21.1.6	Indoor Receptacle Board	Set	1		0.00	0.00	0.00	0.00
21.1.7	Bay Marshalling Kiosk (Outdoor type): 1 BMK for 3 nos 132KV bays and 1 BMK for 4 nos 33KV bays	Nos	5		0.00	0.00	0.00	0.00
21.1.8	Console Box for Switchyard Lighting (Outdoor type)	Nos	2		0.00	0.00	0.00	0.00
21.1.9	Console Box for Street Lighting (Outdoor type)	Nos	2		0.00	0.00	0.00	0.00
21.1.10	Console Box for Colony Supply (Outdoor type)	Nos	1		0.00	0.00	0.00	0.00
21.1.11	Switchyard Receptacle Board for Transformer Oil Filtration (Outdoor type)	Nos	1		0.00	0.00	0.00	0.00
21.1.12	Switchyard Receptacle Board for Welding & Other Emergency (Outdoor type)	Nos	2		0.00	0.00	0.00	0.00
21.1.13	CT Out Door Console Boxes ( 132 KV CT-5 Nos, 33 KV CT-8 Nos) (Outdoor type)	Nos	13		0.00	0.00	0.00	0.00
21.1.14	PT Out Door Console Boxes (132 KV IVT-3 No., 33 KV IVT-1 No.) (Outdoor type)	Nos	4		0.00	0.00	0.00	0.00
21.1.15	Outdoor kiosk for Station Transformer (Outdoor type)	Nos	2		0.00	0.00	0.00	0.00
21.1.16	ACDB for Yard Kiosk (Indoor Type): LT supply to Protection panels, Kiosk lighting, AC etc made of 2mm CR sheet	Nos	1		0.00	0.00	0.00	0.00
21.1.17	DCDB for Yard Kiosk (Indoor Type): DC supply to Protection panels having source 1 & 2 with auto changeover facility, made of 2mm CR sheet.	Nos	1		0.00	0.00	0.00	0.00
21.2	<b>DC SYSTEM:</b>							
21.2.1	220 V DC DISTRIBUTION BOARD (Indoor Type): Having 63A DC MCCB for Incomers, Bus Coupler with interlock, E/F (EARTH LEAKAGE), UNDER & OVER VOLTAGE and shall be SAS compliant.	Set	1		0.00	0.00	0.00	0.00
21.2.2	220 V DC Emergency Lighting Distribution Board (Indoor Type)	Set	1		0.00	0.00	0.00	0.00
21.2.3	Battery cells (2.2V), 350 AH Plante Type for 220 V DC (107 Nos + 3 Nos spare)	Nos	-2		0.00	0.00	0.00	0.00
21.2.4	Battery Charger For 350 Ah Plante Type Battery, 107 cells, 2.2V, Trickle charge volt-2.25V(Float & Float Cum Boost). The Charger ON/OFF status, input/output voltage, output current, associated charger protection signals shall be provided for integration with SAS.	Set	1		0.00	0.00	0.00	0.00
22	<b>ACCESSORIES FOR OPGW SYSTEM With OPGW cable</b>							
22.1	24 Fibre Optic Approach cable along with HDPE Pipes	km	1.00		0.00	0.00	0.00	0.00
22.2	Optical line Terminal Equipment(OLTE) -STM4 type SDH equipment with integrated MUX & tributary cards for speech & data ports for interfacing of Speech & data which should be compatible with existing OPTCL system including all accessories for successful commissioning.	Nos	1.00		0.00	0.00	0.00	0.00
22.3	Supply of FODP(Fibre Optic Distribution Panel)48 F: Indoor type,rack mounted with FCPC coupling and pig tails(DWSm Fibre)	Nos	1.00		0.00	0.00	0.00	0.00
22.4	48 V, 300 AH, maintenance free VRLA Battery set.	Set	1.00		0.00	0.00	0.00	0.00
22.5	SMPS based battery charger of 75A suitable for 48V VRLA battery.	Nos	1.00		0.00	0.00	0.00	0.00
22.6	48V DCDB	Nos	1.00		0.00	0.00	0.00	0.00
22.7	Earth Flat, Cable Tray, Foundation rail, Junction Box,.	Lot	1.00		0.00	0.00	0.00	0.00

23	<b>SUB STATION LIGHTING (AS PER SPECIFICATION AND APPROVED DRAWINGS )(Switch yard and other street area):</b> Design, engineering, procurement of labour, material including all associated works for construction of switch yard lightings as per technical specification and approved drawings. The Light fixture shall be of reputed make (Philips / CGL / Bajaj / Havells / Crompton) and fixtures shall be LED type and proper cabling from the lighting outdoor distribution boards to the junction boxes and from junction boxes to the fixtures. The lighting fixtures are to be installed on the switch yard structures & Street Light Poles. The quantity of such fixtures are to be designed and to be ascertained through the Lighting Design Calculation for acceptable Lux levels.							
23.1	<b>Switchyard Lighting:</b> Installation of 150W LED Fixtures in the Switchyard	Set	46		0.00	0.00	0.00	0.00
23.2	<b>STREET LIGHTING:</b> To be provided along the roads inside the substation area i.e installation of Tubular poles and LED fittings							
23.2.1	Installation of 100W LED Street Light Fixtures	Set	25		0.00	0.00	0.00	0.00
23.2.2	Erection of GI Tubular Pole for street lights including the GI junction box. The pole shall be 7 mtr above the ground.	Set	25		0.00	0.00	0.00	0.00
23.3	Lighting provision for other Areas: Suitable for: (a) Main Gate Lighting (2 Nos of 70 Watt LED) (b) Garden Lighting (4 Nos of 70W LED) with necessary post top lantern with pole (c) Control Room Building peripheral Lighting (4 Nos of 70W LED).	Lot	1		0.00	0.00	0.00	0.00
	<b>Air Conditioners</b>							
21	AIR CONDITIONER: Installation of 2T capacity Split Air Conditioning Units (Dual Inverter, five star or better type, latest model) with copper condensor having remote temperature & operation control facility. Installation of AC Control Panel made of 2mm CR sheet, having suitable outgoing (one outgoing for one AC & with overload control gear) & wiring materials with 15 amp socket & plug for each unit of AC etc to complete (As per specification) for Control/SAS Room, ACDC Room Communication room, office room & Conference room . The ACs in the ACDC Room(04 nos) shall run in tandem i.e 2 ACs at a time for 4 hours each. Suitable control arrangement shall be made using 24hr timer for start and stop. Similarly, for Control Room (2 ACs) and Communication Room (2ACs), one AC at a time for 4 hours each. One AC each in office rooms(2 nos),	Set	12		0.00	0.00	0.00	0.00
	<b>Air conditioners for Yard AC Kiosk with successful commissioning of the units as per TS.</b>	Set	2		0.00	0.00	0.00	0.00
22	<b>Placement of Supplied Fire Extinguishers at various locations of the substations as per instruction of Site Engineer.</b>							
22.1	FOAM TYPE-9 LTRS	Nos	4		0.00	0.00	0.00	0.00
22.2	DRY CHEMICAL POWDER(TROLLEY MOUNTED)- 25 KGS	Nos	4		0.00	0.00	0.00	0.00
22.3	DRY POWDER TYPE -6 KGS	Nos	4		0.00	0.00	0.00	0.00
22.4	CO <sub>2</sub> - 4.5 KGS	Nos	10		0.00	0.00	0.00	0.00
22.5	CO <sub>2</sub> - 9.0 KGS	Nos	10		0.00	0.00	0.00	0.00
22.6	CO <sub>2</sub> (TROLLY MOUNTED)- 22.5 KGS	Nos	4		0.00	0.00	0.00	0.00
22.7	Water type- 9 LTRS	Nos	4		0.00	0.00	0.00	0.00
22.8	Foam type - 50 LTR	Nos	4		0.00	0.00	0.00	0.00
22.9	FIRE BUCKET (6 Nos IN EACH STAND) WITH STAND With Canopy arrangement	Set	6		0.00	0.00	0.00	0.00
23	<b>Maintenance Testing Equipment (All equipment shall comply to the TS and as per list below)</b>	Lot	1		0.00	0.00	0.00	0.00

23.1	Demonstration of the 100KV Automatic Transformer Oil Breakdown Voltage test set (Megger- OTS 100AF / Baur- DTA 100C)	Nos	1					
23.2	Demonstration of the 10KV Insulation Tester with 15m test lids (Megger- S1-1068 / Sonel-MIC 10K1)	Nos	1					
23.3	Demonstration of the Digital Earth Tester (Facility with soil resistivity measurement) (Megger-DET2/3 / Sonel MRU-120 / Fluke 1625)	Nos	1					
23.4	Demonstration of the Digital Multimeter (Megger / Fluke)	Nos	2					
23.4.1	Demonstration of the Digital Clamp meter (Megger/Fluke/Motwane)	Nos	1					
23.4.2	Demonstration of the Leakage current clamp meter AC & DC both (30mA / 300mA / 30A / 300A) (Megger/Fluke/Kyoritsu)	Nos	1					
23.4.3	Demonstration of the SF6 Gas Leakage Detector (Kika/DILO)	Nos	1					
23.5.1	Demonstration of the Fibre Glass Discharge / Earth Rod: Grip up to 50mm, Min height-16ft, rubber grip, 35 sq.mm copper cable (1 set- 3 cables, 1 set of rod, carry bag) (Bemico)	Set	6					
24	Demonstration of the Portable High Beam Light (rechargeable)	Nos	2					
25	Installation of the Desktop Computer: (HP/Lenovo/Dell) complete with all accessories including webcam and speakers and validation of the Genuine Windows Operating System	Set	2					
25.1.8	Installation of the UPS 600VA (APC/V Guard) and verification of the backup	Nos	2					
25.1.9	Installation of the Laser Printer, Black & White, Duplex printing (print, scan & copy) (HP/Canon/Epson)	Nos	1					
26	Installation and demonstration of De Mineralised Plant. The capacity/Hr of the plant and the sp gravity of the de-mineralised water shall be verified and certified by the site engineer.	Set	1		0.00	0.00	0.00	0.00
27	Installation & demo of the 20 Ltr Storage Water Cooler (Voltas/Bluestar only) for performance		1		0.00	0.00	0.00	0.00
28	Installation and demo of the Water Purifier (Kent/Aquaguard/ for performance)		1		0.00	0.00	0.00	0.00
29	<b>Office Furniture:</b> Godrej make (As per details below). Placing In Control Room, Communication Room, Conference Room, Office Rooms, Library, Testing Lab etc.	Lot	1		0.00	0.00	0.00	0.00
29.1	For Control Room, conference room, office rooms, Library, testing room etc							
29.2	5ftX3ft executive table with drawer both sides	Nos	4					
29.3	4.5ft X 2.5ft Table with one side drawer	Nos	7					
29.4	Computer table suitable keeping monitor, CPU, UPS and printer with two nos revolving arm chair suitable for computer use.	Set	1					
29.5	Executive revolving, adjustable (height) chairs with arm	Nos	4					
29.6	Cushion fixed "S" type steel chairs with arm	Nos	16					
29.7	6ftX3ft conference table	Nos	1					
29.8	Cushion arm steel chairs for conference table purpose.	Nos	6					
29.9	6ft height steel almirah (only with selves) for keeping records and other valuable items.	Nos	3					
29.10	6ft height steel almirah with glass doors for library purpose	Nos	2					
29.11	6ft height (having minimum 6 lockers facility) steel cupboard with locking arrangement.	Nos	2					
29.12	4ft steel rack (minimum three selves) for keeping the files and other items.	Nos	8					
29.13	For Communication Room							
29.14	5ftX3ft executive table with drawer both sides	Nos	1					
29.15	Executive revolving, adjustable (height) chairs with arm	Nos	1					
29.16	Cushion fixed "S" type steel chairs with arm	Nos	2					
29.17	6ft height steel almirah (only with selves) for keeping records and other valuable items.	Nos	1					

30	<b>Insulating Mat:</b> Best Quality & approved make (Confirming to IS:15652:2006) to be placed in front & backside of all panels, boards etc.(2000X1000X3mm Size)	Nos	37		0.00	0.00	0.00	0.00
31	<b>COLOUR CODING, BAY MARKING of Entire Sub-Station:</b> Design, engineering, procurement of labour, material including all associated works for the followings. This should be as per direction of site In charge. a)Color coding (red,Yellow & Blue) for equipments, Bus gantry & column of entire switch yard. Good quality weather proof sticker may be used for identification. b) Each bay should be identified with the help of bay marker sign board, suitably grouted. MS sign board with stand to be installed. Proper painting and lettering to be done of the entire switch yard area.	LOT	1		0.00	0.00	0.00	0.00
32	Installation, Commissioning, Testing for IP Based CCTV Surveillance System (Server Based approach) with 4TB Hard Disk, Day/Night Cameras for Control Room, , entire Switchyard areas covering the boundaries, entry and exit points of the Sub-Station, suitable for 360 degree movement with all necessary hardware fittings for monitoring and surveillance of entire grid s/s. Numbers of such cameras (each type of camera viz. PTZ, Bullet & Dome) and other hardware/ accessories are to be calculated as per the standard practice & its installations at the strategic locations. Tentative requirement of cameras: (a) Switchyard Area: 03 Nos. PTZ cameras. (b) Control room Building: (i) MCCDB (AC & DC Room):01 No. (Dome Camera), (ii) Control Room: 01 No. (Dome Camera) (iii) Main Entrance of Control Room: 01 No. (Bullet Camera) (c) Main Gate: 1 no. Bullet Camera.	Lot	1		0.00	0.00	0.00	0.00
<b>PART-A</b>	<b>ERECTION COMPONENT OF THE WORKS CONTRACT FOR SUBSTATION</b>							
	<b>ERECTION,TESTING &amp; COMMISSIONING WORKS _ TRANSMISSION LINE</b>							
Sl. No.	<b>DESCRIPTION OF ITEMS(SCHEDULE-VIIB-LINE) ERECTION, INSTALLATION, TESTING &amp; COMMISSIONING OF FOLLOWING EQUIPMENTS (As per Technical Specification)</b>	<b>UNIT OF MEASURE MENT</b>	<b>QUANTITY:</b>	<b>BASIC PRICE PER UNIT (Taxable Value) In Rs</b>	<b>CGST @ 9% PER UNIT (INTRA-STATE)</b>	<b>OGST @ 9% PER UNIT (INTRA- STATE)</b>	<b>TOTAL PRICE PER UNIT ( In Rs)</b>	<b>TOTAL PRICE FOR THE QUANTITY</b>
1	2	3	4	5	6= {5*9%}	7= {5*9%}	8= {5+6+7}	9= {8*4}
<b>PART-B</b>	<b>ELECTRICAL WORKS</b>							
1.0	<b>ERECTION,TESTING &amp; COMMISSIONING</b> of Following tested Lattice type Galvanized steel tangent / Angle tower without stubs and cleats including different type of G.I HT Nuts & Bolts, washer, spring washer for the above type towers ,hanger and all accessories, tower super structure complete with tightening, punching of bolts including step bolts. All other left out portion of the bolts above bottom cross arm shall be riveted by using suitable hammer. Painting of black bituminous paints three coats shall be provided up to a height of 500mm above(for all the legs of the towers) the cooping legs & bracing members including <b>head loading</b> of tower materials T & P etc. All Erection should confirm to the Technical Specification laid there in the Tender Specification.							
1.1	PA TYPE TOWERS (Nominal unit weight 3.484 MT)- 12 Nos	MT	41.81					
1.1.1	+3 EXTENSION to PA type Towers (Nominal unit weight- 0.637 MT)-8 Nos	MT	5.10					
1.1.2	+6 EXTENSION to PA type Towers (Nominal unit weight- 1.346 MT)-0 Nos	MT	0.00					
1.2	PB TYPE TOWERS (Nominal unit weight 5.102 MT)-7 Nos	MT	35.71					

1.2.1	+3 EXTENSION to PB type Towers (Nominal unit weight 1.038 MT)-3 Nos	MT	3.11					
1.2.2	+6 EXTENSION to PB type Towers (Nominal unit weight- 1.152 MT)-0 Nos	MT	0.00					
1.3	PC TYPE TOWERS (Nominal unit weight- 6.174 MT)-11 Nos	MT	67.91					
1.3.1	+3 EXTENSION to PC type Towers (Nominal unit weight- 1.15 MT)-1 Nos	MT	1.15					
1.3.2	+6 EXTENSION to PC type Towers (Nominal unit weight- 2.416 MT)-2 Nos	MT	4.83					
1.4	UR TYPE TOWERS (Nominal unit weight- 13.348 MT)-0 Nos	MT	0.00					
1.4.1	+6 mtr Extension to UR type Tower (Nominal Weight- 4.147 MT)-0 Nos	MT	0.00					
1.5	OC TYPE TOWERS (Nominal unit weight- 9.967 MT)-0 Nos	MT	0.00					
1.5.1	+15 mtr Extension to OC type Tower (nominal Weight- 0 MT)-0 Nos	MT	0.00					
1.6	<b>WEIGHT OF THE GI TOWER STRUCTURES INCLUDING STUB</b>	MT	<b>159.63</b>		0.00	0.00	0.00	0.00
1.7	<b>Weight of different type G.I Nuts &amp; Bolts and including different size of plain washer / spring washer for tower structure</b>	MT	<b>2.5662</b>		0.00	0.00	0.00	0.00
1.8	<b>Fixing of of Templates &amp; Setting of stubs.</b>							
1.8.1	PA (Nominal unit weight- 0.492 MT)(1 nos.)	MT	0.492					
1.8.2	PB (Nominal unit weight- 0.624 MT)(1 no.)	MT	0.624					
1.8.3	PC (Nominal unit weight- 0.876 MT)(1 no.)	MT	0.876					
1.8.4	UR (Nominal unit weight-1.476 MT)(0 nos)	MT	0.000					
1.8.5	OC (Nominal unit Weight- 1.006 MT)(0 Nos)	MT	0.000					
1.9	Total of Template erection	MT	<b>1.992</b>		0.00	0.00	0.00	0.00
2.0	<b>Erection of the following tower accessories as per technical specification and as directed by the engineer in charge.</b>							
2.1	EARTHING DEVICE	Nos.	30		0.00	0.00	0.00	0.00
2.2	DANGER BOARD	Nos.	30		0.00	0.00	0.00	0.00
2.3	NUMBER PLATE	Nos.	30		0.00	0.00	0.00	0.00
2.4	PHASE PLATE	Nos.	180		0.00	0.00	0.00	0.00
2.5	BIRD GUARD	Nos.	72		0.00	0.00	0.00	0.00
2.6	ANTICLIMBING DEVICE	Nos.	30		0.00	0.00	0.00	0.00
2.7	CIRCUIT PLATE	Nos.	60		0.00	0.00	0.00	0.00
3	Hoisting and fixing of insulators with required accessories etc , paying out of conductor ,jointing, stringing, sagging & Jumpering etc. of power conductor in the proposed lines and without earth wire with all required accessories including <i>scaffolding for 33 KV,11 KV, LT , P&amp;T</i> lines, roads (SH & NH) and using own required T&P and compression jointing machines etc. with 1.5% provision for Sag & Wastage including head loading of stringing materials T & P etc. and as per the direction of Engineer in charge.							
3.1	Double Circuit (ACSR Panther, Six Power Conductor )	RKM	53.01		0.00	0.00	0.00	0.00

4	48/24 fibre (DWSM) OPGW cable with hardware Set like suspension Assembly,Tensin Assembly(Dead end assembly, Pass through assembly) ,Vibration Damper,Down Lead Clamp Assemblies for 24F/ 48 Fibre(DWSM) OPGW,Joint Box etc erection in complete shape for 37 Kms (5+32) suitable for OPGW cable as mentioned in 7 of supply schedule of Transmission line including head loading of materials T & P etc.	Kms.	8.705		0.00	0.00	0.00	0.00
<b>PART-B</b>	<b>ERECTION COMPONENT OF THE WORKS CONTRACT FOR TRANSMISSION LINE</b>							<b>0.00</b>
	<b>TOTAL OF ERECTION COMPONENT OF THE WORKS CONTRACT_ SCHEDULE VIIB (SS+LINE) (A+B)</b>							<b>0.00</b>

**NOTE**

- 1 Before filling up rate/amount etc. in the schedules bidders are requested to read carefully the instruction given in Vol-I of Bidding Document.
- 2 Bidders are required to fill up only blue shaded cells.
- 3 Bidders are requested to not leave any column blank. If any column is left blank it shall be considered that amount against those items are included in any other item and the total amount for that item shall be calculated as free of cost (Zero value).
- 4 Basic Price (taxable value) for supply includes Packing & Forwarding, freight & insurance etc. excluding GST with full Input Tax Credit)

PACKAGE -CPC-55/2022-23 132/33 KV S/S AT JHARBANDH & ASSOCIATED 132 KV LILO LINE (CIVIL WORKS)			ODISHA POWER TRANSMISSION CORPORATION LIMITED					
			NAME OF THE WORK:-					
			NOTICE INVITING TENDER-NIT NO. -CPC-55/2022-23 & BID DOCUMENT No.:Sr. G.M- CPC- e-Tender- PRICE BID FOR WORKS CONTRACT (SAC CODE - 995423); SCHEDULE - VII-C - PART -III CIVIL WORKS COMPONENT OF THE WORKS CONTRACT-( PACKAGE- 55/2022-23)					
		NAME OF BIDDER						
	<b>CIVIL WORKS SUBSTATION</b>							
Sl. No.	DESCRIPTION OF ITEMS(SCHEDULE-VIIC-SS) CIVIL WORK COMPONENT OF THE WORKS CONTRACT OF FOLLOWING EQUIPMENTS (As per Technical Specification)	UNIT OF MEASUREMENT	QUANTITY:	BASIC PRICE PER UNIT (Taxable Value) In Rs	CGST @ 9% PER UNIT (INTRA-STATE)	OGST @ 9% PER UNIT (INTRA-STATE)	TOTAL PRICE PER UNIT ( In Rs)	TOTAL PRICE FOR THE QUANTITY
1	2	3		5	6= {5*9%}	7= {5*9%}	8= {5+6+7}	9= {8*4}
PART A	<b>CIVIL WORKS</b>							
1	<b>CONTOUR SURVEY,AND LEVELING, BACK FILLING</b>							
1.1	<b>Contour survey</b> and furnishing contour map including supply of all materials, Labour and T&P	SQ.MTRS.	20692		0.00	0.00	0.00	0.00
1.2	<b>Soil investigation</b> : Supply of labour,T&Pand other necessary arrangements for Soil investigation/testing of the Switchyard,control Room, Quarters area etc.as per the site requirement,Technical specification & instruction of Engineer-in-Charge.	PER POINT	5		0.00	0.00	0.00	0.00
2	<b>Excavation for OPEN CAST foundation and back filling of columns,Equipments foundations,including supply of all labours,T&amp;P,and materials and as per the direction of the Engineer-in-Charge.</b>							
2.1	<b>Normal Soil(SOFT/LOOSE)</b>	Cum	500		0.00	0.00	0.00	0.00
2.2	<b>Hard Soil</b>	Cum	600		0.00	0.00	0.00	0.00
2.3	<b>Soft Rock</b>	Cum	200		0.00	0.00	0.00	0.00
2.4	<b>Hard Rock(Requiring Blasting/Using breaker machinery)</b>	Cum	100		0.00	0.00	0.00	0.00
3	<b>OPEN CAST/SHALLOW FOUNDATION CONCRETE WORKS</b>							
3.1	Foundations: Design, engineering, supply of all labour, material and construction(open cast foundation) of PCC, RCC footings of any depth, pedestal including the cost of soil investigation, concreting, cement, reinforcement steel, shuttering, grouting, underpinning and back filling of foundations etc complete for the switchyard gantry/ portal /column structures and equipment support as per the technical specification and approved drawings & disposal of excess earth as per direction of Engineer In charge. (a) For Switch yard gantry/portal structure foundations (b) For 132 & 33 KV Equipment foundations. (c) For other equipment foundations.							
3.1.1	Design, Engineering, Providing and laying of <b>plain cement concrete (PCC 1:3:6) of grade M10</b> with approved quality coarse aggregates (Nominal size 12mm to 20mm) , fine aggregates, cement in for the above column/equipment/marshalling box foundations for column and equipment foundation as blind layer inclusive of labour charges for concrete mixing & curing. This includes supply of all labourers, T&P and dewatering wherever required as per Technical specification and instruction of Engineer In charge.	Cum	100		0	0	0	0

3.1.2	Open cast foundation for the above column/equipment/marshalling box foundations with <b>RCC: 1:1.5:3 (Grade M-20)</b> ,including supply of Labour all materials like cement, coarse and fine aggregates,shuttering,proper curing of the foundations/concrete and T&P in line with the Technical Specification and as per direction of Engineer in Charge. ( without cost of steel)	Cum	1000		0	0	0	0
3.1.3	Supply of steel different sizes(TATA/RINL/SAIL make only). No other make of steel shall be allowed. As per the design with cutting, bending, binding and placing in position of steel rods for foundation concreting including cost of binding wire.	MT	20		0	0	0	0
4	<b>Cutting, Filling and Leveling</b> of Sub-station area including supply of labour and T&P							
4.1	<b>LEVELLING OF S/S AREA:</b> Providing, neatly dressing up and levelling of substation area including switchyard area to a required level as decided by the Engineer in Charge, the work includes removal, clearing of the entire area from vegetation, trees, bushes, uprooting of plants and disposal of surplus earth and unusable material from the site by means of any mechanical transport, if required as per direction of the Project In charge, with all labours, tools, tackles and plants complete as per approved drawing and specification. This also includes excavation in all type of soils or rocks, back filling and disposal of excess earth or rocks to make the area to a level for construction as per scope and as per approved drawing and specification.							
4.1.1	<b>CUTTING</b> of substation area and utilising the usable soil for filling and compaction and disposing the unusable soil from site							
4.1.1.1	Soft/loose soil	<b>Cum</b>	1000		0.00	0.00	0.00	0.00
4.1.1.2	Dense/ Compact soil	<b>Cum</b>	3200		0.00	0.00	0.00	0.00
4.1.1.3	Soft/Disintegrated rock[not requiring blasting]	<b>Cum</b>	200		0.00	0.00	0.00	0.00
4.1.1.4	Hard rock[requiring blasting or by using concrete breaker machinery]	<b>Cum</b>	0		0.00	0.00	0.00	0.00
4.1.2	<b>FILLING</b> of substation area with borrowed earth with supply of all labour,T & P.							
4.1.2.1	Up to 30 mtr lead	<b>Cum</b>	0		0.00	0.00	0.00	0.00
4.1.2.2	Beyond 30 mtr & up to 100mtr lead	<b>Cum</b>	30000		0.00	0.00	0.00	0.00
4.1.2.3	Beyond 100mtr lead	<b>Cum</b>	500		0.00	0.00	0.00	0.00
5	<b>Cable Trenches:</b> Design, engineering, and construction of RCC cable trenches and all associated works for cable trench and cable trench crossings as per technical specifications and approved drawings and as per direction of the Engineer in Charge. (1) This also includes excavation in all types of soil or rocks,back filling and disposal of excess earth as per the direction of Engineer In charge.  (2) Design, Engineering, Providing and laying of plain cement concrete (PCC 1:3:6) of grade M10 with approved quality coarse aggregates (Nominal size 12mm to 20mm) , fine aggregates, cement in cable trench as blind layer inclusive of labour charges for concrete mixing & curing. This includes supply of all labourers, T&P and dewatering wherever required as per Technical specification and instruction of Engineer In charge.							

	<p>(3) Open cast foundation for the cable trench with RCC: 1:1.5:3 (Grade M-20 Nominal mixing), including supply of Labour all materials like MS Rod, Cement, coarse and fine aggregates, shuttering, cutting, bending, binding of M.S.Rod including supply of binding wire proper curing of the foundations/concrete and T&amp;P in line with the Specification and as per direction of Engineer in Charge.</p> <p>(4) Fly ash Brickwork with fly ash Brick, plastering (1:6 Ratio) &amp; curing, wherever required including the supply of labour, material, cement, etc.</p> <p><b>(5) The outdoor cable trench wall top surface shall be "L" shaped and the cover slabs shall be placed with in the"L shaped" surface of both the walls. The top surface of the trench shall be smooth finished.</b></p> <p>(6)Supply,fabrication &amp; Fixing of <b>GI Angle</b> for cable tray support (as per specification). The cable tray support frame shall be pre fabricated GI angle as per requirement and to be welded with the GI insert plate fixed on the trench wall for better rigidity. The Insert plate (6mm) fixed on the wall are also to be welded with the MS rods provided for the trench wall before concreting.</p> <p>(7) Precast of <b>RCC covers (1:1.5:3) with MS sheet(2mm)</b> frame and its fixing on the cable trench as per spec and instruction of Engg. In Charge.</p> <p><b>(8) All the RCC cover slabs shall have the lifting hooks. The slabs without the MS sheet frame and Lifting hooks shall not be accepted.</b></p> <p>(8) Cable Trenches Inside The Control Room Shall Be Covered With M.S Chequered Plate(Duly Painted As Per Instruction Of Engg In Charge) Including Standard Support Stand {Hd Galvanised (M.S Joist , Channel, Angle). Stoppers shall be fixed at the underneath so that the chequered shall not be falling into the cable trench in any case.</p>							
5.2	Section 3-3	Mtrs	50		0.00	0.00	0.00	0.00
5.3	Section 4-4 <b>(inside dimensions- width- 400mm, height- 400mm), wall- 75mm, bottom concrete-75mm, two 150mm trays shall be laid side by side in one layer.</b>	Mtrs	50		0.00	0.00	0.00	0.00
6	<b>Rain water harvesting</b> system as per Technical specification and approval of drawing and as per the direction of the Engineer in charge.	Nos	2		0.00	0.00	0.00	0.00
7	<b>Cable trench crossing:</b> Design,engineering,construction including supply of labour,materials,cement,reinforcement steel,formwork etc,and all associated works for construction of trench crossing as per technical specification and approved drawing.(Road crossing )							
7.1	<b>Section 3-3</b>	Nos	1		0.00	0.00	0.00	0.00

8	<p><b>Switchyard AC Kiosk:</b> Yard AC Kiosk made of RCC structure and Brick walls with complete finishing as per instruction of Engineer In Charge: The dimension of the Yard Kiosk shall be such as to accommodate all the 132&amp; 33KV protection relay panels, RTCC panels, ACDB, DCDB, Metering panel and space for two nos 132KV &amp; 2 nos 33KV future bay panels. 1. The Kiosk finished Floor shall be 300mm above the FGL of switchyard. 2. The Kiosk shall have floor cutouts in the form of cable trench for installation of SAS Panels. 3. The inside cable trench shall be routed to the switchyard through pipes. 4. Wall cutout shall be provided for installation of the Air conditioner system. 5. Two nos of doors shall be provided. Work shall be carried out as per OPTCL approved drawing and on instruction of Engineer in Charge.</p>	Nos	2		0.00	0.00	0.00	0.00
9	<p><b>Roads:</b> Design, construction of roads and walkways/ shoulders within sub-station(Switch yard area,colony area,approach road,control room building area, main gate to the switch yard gate etc) as per specification, layout and approved drawings complete. This also includes excavation in all types of soil or rocks,back filling,and disposal of excess earth as per the direction of Engineer In charge. Provision of drains on both the side of the roads for easy discharge of rain water.</p>							
9.1	<p><b>7 mtrs concrete road</b> with shoulder at both the side as per technical specification indicated in the civil section(from the switch yard main gate to power transformer &amp; in front of GIS cum control room building.</p>	Mtrs	400		0.00	0.00	0.00	0.00
9.2	<p><b>Approach Road:</b> 7 mtrs concrete road with shoulder at both the side as per technical specification indicated in the civil section(from the switch yard main gate to the govt road.</p>	Mtrs	300		0.00	0.00	0.00	0.00
9.3	<p><b>3.75 mtrs concrete road</b> with shoulder at both the side as per technical specification indicated in the civil section( Periphery roads outside switch yard fencing and colony roads)</p>	Mtrs	800		0.00	0.00	0.00	0.00
10	<p><b>Drainage system:</b>Collection of rainfall data, Design, construction of storm water drainage scheme (RCC type), road-culverts,Shall have drain on both side of the road and drains crossing cable trenches etc. as per specification and approved drawing. This also includes excavation in all types of soil or rocks,back filling,and disposal of excess earth as per the direction of Engineer In charge. All the switch yard bays , roads water drainage shall be connected to the main surface drain. As per approved drawing and specification. All the drainage system shall be RCC type with M20 grade concrete.</p>							
10.1	<p><b>Storm water drain (RCC type) as per design above and subsequent approval</b></p>	Mtrs.	500		0.00	0.00	0.00	0.00
10.2	<p><b>Road side drains(RCC type)-on each side of the 3.75 mtr and 7 mtr concrete roads as per design above &amp; subsequent approval</b></p>	Mtrs	2000		0.00	0.00	0.00	0.00
10.3	<p><b>Road-culverts, drain crossings (RCC type)</b></p>	Lots	1		0.00	0.00	0.00	0.00
10.4	<p><b>Cable trench crossing (RCC type)</b></p>	Lots	1		0.00	0.00	0.00	0.00

11	<b>Foundations for transformers</b> :Design, engineering, supply of labour, material, equipments and construction of Auto-transformer/Transformer foundation including piling if any, all associated works, rail tracks, jacking pads,anchor block RCC and PCC, miscellaneous structural steel including oil collection pits, MS grating(if required), gravel filling, and other items etc. not mentioned herein, but specifically required for the completion of the work as per technical specification and approved drawing. (Rate shall be inclusive of cement, reinforcement steel, angles,flats and form work etc.)(all cement concrete shall have RCC ratio 1:1.5:3). Transformer RCC foundation and Rail Track should be extended upto the approaching road (However,the height of RCC foundation beyond transformer main plinth area should be same as height of concrete road ). This also includes excavation in all types of soil or rocks,back filling,and disposal of excess earth.							
11.1	<b>20 / 40 MVA 132/33KV Transformer</b> <b>a) Overall dimension of transformer(appox)</b> <b>Length:7200 mmX Width 6000 mmX Height 6200 mm</b> <b>b) Total weight with oil and tank: 97.5 MT (appox)</b>	Nos	2		0.00	0.00	0.00	0.00
11.2	<b>OIL SUMP PIT:</b> Design, engineering, supply of labour, material, equipments and construction of oil sump pit (RCC with ratio 1:1.5:3) including piling if any, all associated works & suitable connectivity oil collector pit provisioned near the transformer to the main oil sump pit and with provision of pump (suitable for handling transformer oil having capacity of 5 HP, with auto level control , including cabling, fixing of control gear & <b>provision of a pump house over the oil sump pit</b> ). <b>This oil sump pit shall be as per CIGRE standard for the oil collection pit inorder to separate oil from the water.</b> Other piping with necessary valves arrangement shall also be provided to remove water from the oil sump pit. As per spec and approved drawing. Oil capacity of each Transformer in ltrs appox. 40 MVA 132/33KV:30000 ltrs. appox	Nos	1		0.00	0.00	0.00	0.00
12	<b>PCC before site surfacing:</b> Providing and supplying all labour, material, equipments etc. required for proper leveling of earth after erection of structures and equipments and proper compaction by using roller of adequate capacity(minimum 3 Ton capacity) with water sprinkling of switch yard area. After proper leveling of the switch yard area (after anti-weed treatment), spreading of plain cement concrete with mixing ratio 1:4:8 (M10) and maintaining proper sloping for easy discharge of storm water having concrete thickness of 75 mm. including rolling , dressing, compacting,the area. As per technical specification and approved drawing, and as per the instruction of the Engg-in-Charge. This also includes excavation in all types of soil or rocks,back-filling,and disposal of excess earth as per the direction of Engineer in charge and approved drawing. (Switch yard area)	CUM	375		0	0	0	0
13	<b>METAL SPREADING IN THE SWITCH-YARD:</b> Providing supplying and laying two layers of machine crushed metals (gravel) fill, the first layer after compaction shall make minimum 50 mm thickness coarse/ layer of 20 mm nominal size consolidated/ compacted and (by using roller as specified in the specification).A final layer of 50 mm thickness of machine crushed 20 mm nominal size of metals(gravel) above the first layer of 50 mm thickness and as per the technical specification and instruction of Engineer in charge above the PCC(1:4:8). The total compacted thickness of the metals(20 mm Nominal) 100mm above the PCC.	CUM	500		0.00	0.00	0.00	0.00

14	<p>Land scaping &amp; provision for platform for hoisting of National Flags and Provision of Garden:  Provision of gardens in front of the control room building &amp; other areas where can be provided as per the site Engineer's instruction, with lawn area with motorised fountain including supply of decorative plants, garden grass, adequate nos of flowering plants, plantation of 100 nos fruit bearing plants, 100 decorative plants etc with soil treatment and its plantation including materials, labour and T&amp;P. As per the instruction of Engineer in Charge .  Provision of water tap with water sprinkler arrangement and drip irrigation system including water pipe laying with control at different location including supply of all materials.  Both side of the RCC roads shall also be provided with decorative plants as per the instruction of the Site Engineer.  Construction of platform &amp; suitable GI pipe &amp; other attachment for hoisting of National Flags As per the direction of Engineer incharge.</p>	LOT	1		0.00	0.00	0.00	0.00
15	<p><b>STONE PITCHING &amp; TOE WALL:</b>Stone pitching including making of toe walls both at top and bottom, including surface drain both at top and bottom and partition wall in every 10 mtrs by using boulders and RR masonry walls respectively. This also includes excavation in all types of soil or rocks,back filling,and disposal of excess earth and supply of materials and labour as per the direction of Engineer In charge and as per approved drawing and specification.</p>	Cum	500		0.00	0.00	0.00	0.00
16	<p><b>RETAINING WALL:</b> Construction of RCC retaining wall below the FGL and from NSL as per the site condition to sustain the earth pressure. The depth and length of RCC wall shall be designed as per site requirement. This includes excavation in all type of soil, RCC (1:1.5:3) with supply of steel(Fe-500), cement ,sand etc. including cutting, bending, binding, backfilling in layers after concreting for soil compaction and also supply of other required materials and labour . The work shall be executed as per the approved design , drawing as per direction of Engineer In charge</p>	CUM	100		0.00	0.00	0.00	0.00
17	<p><b>Switch yard fencing:</b> Providing and fixing of G.I Goat mesh (2.5 mm dia) fencing ( the posts and links shall be of HD Galvanized ) in switch yard and other areas of the substation with a total fence height complete as per specification and approved drawings, and as required under the safety regulation of local, State and Central Government bodies and as per instruction of the Engineer-in-Charge.(The PCC work for grouting the post shall be 1:2:4 and a continuous Brick Masonry work with ratio mortar (cement and sand)1:5 and cement pointing of the joints, for the fencing upto a height of 350 mm from the finished ground level) .This also includes excavation in all types of soil or rocks, back filling and disposal of excess earth as per the direction of Engineer In charge. The earthing of the fencing shall be as per specification. <b>The fencing shall be continuous i.e. a GI flat of 50 x 6mm shall run continuous at top &amp; at bottom all along the fence. The fencing shall be connected to the earth mat every 3 mtrs.</b></p>	Mtr	335		0.00	0.00	0.00	0.00

18	<b>Fire wall:</b> Design, engineering, procurement of labour, material including all associated works for construction of fire-walls as per technical specification and approved drawings(column shall be RCC ratio 1:1.5:3 and the walls are of fire resistant bricks).This also includes excavation in all types of soil or rocks,backfilling,and disposal of excess earth as per the direction of Engineer In charge. As per approved drawing and specification. The MS Rod FE-500 as per BIS-1786 to be used .Painting of the walls as per direction of the Engineer in charge	NO.	1		0.00	0.00	0.00	0.00
21	<b>SWITCH YARD GATES:</b> Design, engineering, procurement of labour, material including all associated works for construction of foundation for the Gates including piling if any and fixing of a main gate and one no. switch yard gates with men gates as per specification and approved drawing. This also includes excavation in all types of soil or rocks,back filling,and disposal of excess earth as per the direction of Engineer In charge. Provision of gate lights (Post top lantern type) on each pillar of the gate. It includes supply & fixing of light fixtures including LED Gate lamp (70 W), LV XLPE cables, switchgear etc required to complete works as per specification and approved drawings.							
21.1	<b>SWITCH YARD GATE(ON BOTH SIDES OF 7MTRS. CONCRETE ROAD OF SWITCHYARD)</b>	Nos.	2		0.00	0.00	0.00	0.00
22	<b>STORE SHED:</b> Design, engineering, procurement of labour, material including all associated works for construction of store shed as per specification and approved drawing. This also includes excavation in all types of soil or rocks,back filling,and disposal of excess earth as per the specification,approved drawing and direction of Engineer In charge. One no store shed of floor size 10X10 mtr having Fly ash Brick walls and plastering with RCC roof. The flooring shall be of 75 mm thickness PCC (mix ratio1:2:4) over RR masonry works (as per standard practice of flooring). Provision of adequate nos of MS racks (proper paintings also to be done as per the direction of site in charge) for keeping the spare materials. The height of the shed shall be 4mtrs above the plinth. Internal concealed wiring (including supply of flexible copper FRP 1.1 KV PVC wire,conduits & its accessories,modular type switches & switch board,Junction boxes with required MCB & Earth leakage detector switchgear etc),fixing of lighting fixtures & switchgear ,ceiling fans of 1400 sweep and regulators( including supply) and provision of incoming AC supply from the main ACDB/outdoor kiosks installed for street light or colony quarters.  Also includes painting of the building (in side and out side) as per recommended for colony building in the specification.Store shed door shall have access control system which is sensor operated with key card for entry. Log of all the persons accessing the store shed with date and time stamp shall be kept in the system. There shall be provision for manual override of the system for exigencies as per direction of engineer in charge. Installation of smoke and fire detection & Alarm system of the building. Provision of conventional fire fighting equipment (including supply of FFE) at strategic location suitable for wall hanging as per direction of engineer in charge. The MS Rod ( FE-500 as per BIS-1786 ) to be used in the building. (* REMARKS : FOR SUPPLY OF ALL THE CABLES AS INDICATED ARE COVERED IN THE supply)}	Lot	1		0.00	0.00	0.00	0.00

23	<b>VEHICLE PARKING SHED:</b> The size of the parking area shall be 15mtrs X 15 mtrs, out of the entire area there shall be provision of shed for 5 mtrs X 15 mtrs and rest of the area shall be without shed. 100 mm thick PCC(1:2:4) flooring after the preparing the foundation base & Roof of the parking place shall be RCC & Parking shed shall be as per TS-E6-Civil & as per the direction of Engineer in Charge. The MS Rod FE-500 as per BIS-1786 to be used in the building.	Lot	1		0.00	0.00	0.00	0.00
24	<b>FIRE FIGHTING</b> (Nitrogen Injection Type Fire Prevention & Extinguishing System) SYSTEM WITH DETAILED DESIGN SUITABLE FOR 20 MVA, 132/33 KV POWER TRANSFORMER etc AS PER THE TECHNICAL SPEC. & LATEST STANDARD.							
24.1	<b>All civil works related to NIPES as per approved drawing including excavation in all type of soil, PCC, RCC, Steel , backfilling, compaction etc complete in all respect as per instruction of site in-charge.</b>	Lot	2		0.00	0.00	0.00	0.00
25	<b>STATION TRANSFORMER:</b> Design, engineering, procurement of labour, material including all associated works for construction of foundation(RCC) for the station transformers 2X 33/0.415 KV,250 KVA (plinth mounted) and foundation for 4P structure including piling if any as per approved drawing and specification. It includes other accessories & materials as required need to be supplied for complete installation of transformer as per the instruction of Engineer In charge and as per the specification and approved drawing.	Nos	2		0.00	0.00	0.00	0.00
26	<b>Anti-Weed Treatment</b> :Supply of labour,T&P,Chemicals and other necessary arrangements for anti-weed treat of the switch-yard areas,controlroom etc. as per the instruction of Engineer-in-Charge.The chemical to be sprayed as per the standard practice adopted for antiweed treatment of sub-station area & as per the technical specification.	Sq Mtrs	5000		0.00	0.00	0.00	0.00
27	<b>PLATFORM FOR STORING EQUIMENTS:</b> Design, engineering, procurement of labour, material including all associated works for construction of a platform for storing of bushings,Instrument transformers etc, as per specification and approved drawing. This also includes excavation in all types of soil or rocks,back filling,and disposal of excess earth as per the specification,approved drawing and direction of Engineer In charge. One no platform outside the store shed RR masonry (compacted) with PCC (1:2:4) at the top for storing the transformer bushings, Instrument transformers, transformer oil drums etc. Platform shall have provision of sand bed for storing insulators. The floor size of the platform shall be 15mtrX10 mtr with Galvanised Corrugated Sheet (Tata Make) top cover and associated MS supporting structure duly painted.	Lot	1		0.00	0.00	0.00	0.00
28	<b>PROVISION OF SAND BED:</b> Design, engineering, procurement of labour, material including all associated works for construction of sand bed as per specification and approved drawing. This also includes excavation in all types of soil or rocks, back fillin ,and disposal of excess earth as per the direction of Engineer In charge. The sand bed size shall be of 10m x 5m constructed with bricks, plastered and the filled with river sand for storing of Transformer Bushings and other Insulators.	Lot	1		0.00	0.00	0.00	0.00
29	Any other civil work to be included in the schedule by the Bidder if required essential for successful completion of project, including supply of labour, material, cement reinforcement steel, form work etc. Bidder shall also quote the unit rate for the following items of works.(Rate shall be inclusive of supply of labour, material, cement, reinforcement steel, form work etc. )							

29.1	Excavation This also includes excavation in all types of soil or rocks, back filling,and disposal of excess earth as per the direction of Engineer In charge.	Cu.m.	1		0.00	0.00	0.00	0.00
29.2	PCC: M10(1: 3 : 6)	Cu.m.	1		0.00	0.00	0.00	0.00
29.3	RCC M 15(1:2:4)	Cu.m.	1		0.00	0.00	0.00	0.00
29.4	RCC: M 20(1:1.5:3)	Cu.m.	1		0.00	0.00	0.00	0.00
29.5	Brick masonry work in cement sand mortar 1: 6 with bricks of class designation 75.	Cu.m.	1		0.00	0.00	0.00	0.00
29.6	12 mm thick plaster in cement sand mortar ( 1: 6 ).	Sq.m.	1		0.00	0.00	0.00	0.00
29.7	Cutting,bending,binding(supply of binding wires) and fixing of reinforcement(including supply of reinforcement FE-500 as per BIS-1786 ).	M.T.	1		0.00	0.00	0.00	0.00
<b>TOTAL OF Civil Work (PART-A) SUBSTATION</b>								<b>0.00</b>
<b>PART B</b>	<b>CIVIL WORKS</b>							
<b>B.1</b>	<b>CONTROL ROOM BUILDING</b>							
1	Earthwork excavation in all kinds of soil as per drawing and technical specification including dressing and levelling the bed, sides and bottom and removing the excavated earth and depositing the same away from the work site within initial lead of 50m and initial lift of 1.5m, including cost, conveyance of all materials, all labour, T&P articles required for the work, including shoring, shuttering, propping and dewatering if required etc. complete in all respect as per direction of the Engineer in Charge.	Cum	329.07		0.00	0.00	0.00	0.00
2	Extra lift or 1.5m or part there of over the initial lift of 1.5m in all kinds of embankments and road works and ordinary earth work in general.	Cum	112.12		0.00	0.00	0.00	0.00
3	Cutting in disintegrated rock not requiring blasting to be removed by pick axes and crow bars and depositing materials within 50m initial lead and 1.5m initial lift including rough dressing as per direction and specification of the department including stacking the useful materials separately as ordered.	Cum	219.39		0.00	0.00	0.00	0.00
4	Back filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead upto 50 m and lift upto 1.5m.	Cum	109.69		0.00	0.00	0.00	0.00
4	Carriage / disposal of excavated surplus earth from the worksite by mechanical means within a lead of 5Km including loading and unloading etc. complete. in all respect as per direction of Engineer-in-Charge.	Cum	438.77		0.00	0.00	0.00	0.00
5	Supplying, filling in foundation and plinth with sand in 22.5 cm (9") thick layers including watering and ramming with cost, conveyance, royalties and taxes of sand with labour and T&P required for the work etc. complete (Measurement will be taken on finished compacted section only).	Cum	543.37		0.00	0.00	0.00	0.00
6	Providing and lying Plain Cement Concrete of proportion (1:3:6) in foundation and floors using 4cm (1 1/2") 0 mm & down grade black hard crusher broken granite stone metal, washed and screened sharp sand of approved quality from approved quarry including hoisting, lowering, laying the concrete, ramming, watering and curing etc. complete to required thickness including cost of all materials, conveyance, loading, unloading,cost of labours, T&P, hire & running charges of concrete mixer, etc. all complete as per the direction of the Engineer -in -charge.	Cum	86.34		0.00	0.00	0.00	0.00

7	Providing & laying Plain cement concrete (1:2:4) using 12mm size black hard crusher broken granite chips of approved quality from approved quarry including hoisting, lowering and laying concrete in layers, watering, curing etc. complete including cost, conveyance, royalties and taxes of all materials with labour, cess and T&P etc. required for the work complete.							
	<b>FIRST FLOOR</b>	CUM	5.26		0.00	0.00	0.00	0.00
8	Providing and laying in position ready mixed M-25 grade concrete having compressive strength at 28 days test not less than 250 kg/ sq.cm for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying , including the cost of centering, shuttering finishing and excluding reinforcement including cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, and hoisting, lowering, laying and compacting concrete, watering and curing and finishing the exposed surfaces smooth with cost, conveyance, royalties, of all materials with all labour,Labour cess and T&P required for the work improve workability without impairing strength and durability as per direc. switchgear ,ceiling fans of 1400							
A	<b>GROUND FLOOR</b>							
a	Foundation & bases of column	cum	142.73		0.00	0.00	0.00	0.00
b	Plinth Beam	cum	16.23		0.00	0.00	0.00	0.00
c	Pedestal & Columns	cum	30.41		0.00	0.00	0.00	0.00
d	Roof Beam	cum	22.24		0.00	0.00	0.00	0.00
e	Lintel	cum	2.74		0.00	0.00	0.00	0.00
f	Chajja	sqm	25.32		0.00	0.00	0.00	0.00
g	R.C.C. floor and roof slab	cum	54.37		0.00	0.00	0.00	0.00
h	R.C.C. staircase	cum	3.09		0.00	0.00	0.00	0.00
B	<b>FIRST FLOOR &amp; HEAD ROOM</b>							
a	Columns	cum	19.09		0.00	0.00	0.00	0.00
b	Roof Beam	cum	21.89		0.00	0.00	0.00	0.00
c	Lintel	cum	3.36		0.00	0.00	0.00	0.00
d	Chajja	sqm	16.10		0.00	0.00	0.00	0.00
e	R.C.C. floor and roof slabs	cum	47.64		0.00	0.00	0.00	0.00
f	R.C.C. staircase	cum	3.27		0.00	0.00	0.00	0.00
9	Cutting, straightening coiled or bent up M.S. rods, HYSD steel or Tor Steel welding or jointing if necessary, bending, binding, tying the grills as required for RCC works, and hoisting, lowering and placing in proper position according to approved designs and drawings including cost, conveyance, loading, unloading, M.S. rods, HYSD steel or Tor steel and binding wires of 18 to 20 gauge required for the work and cost of all labour, sundries, T&P and scaffolding complete in all respect as directed by the Engineer-in-Charge (payment will be made according to the actual weight of M.S. rod, HYSD steel or Tor steel consumed in the work and no separate payment will be made towards weight of binding wires which is to be borne by the contractor at his own cost).							
A	GROUND FLOOR	Qntl	336.87		0.00	0.00	0.00	0.00
B	FIRST FLOOR	Qntl	131.06		0.00	0.00	0.00	0.00

10	Fly Ash brick masonry using fly ash bricks of size 25 cm. x 12 cm. x 8 cm. having crushing strength not less than 75 kg. Per Sqr. Cm. in cement mortar of mix (1:6) with ordinary portland cement (OPC) and screened & washed sand for mortar after immersing the bricks for 6 (Six) hours in water before use including splays cutting, circular moulding, corbelling, chamfering and similar such type of works, watering and curing etc. including cost, conveyance, loading, unloading, royalties of all materials, cost of all labour, scaffolding, sundries, T&P required for the works etc. complete in all respect as directed by the Engineer-in-charge							
A	Foundation & Plinth	Cum	47.26		0.00	0.00	0.00	0.00
B	GROUND FLOOR	Cum	97.83		0.00	0.00	0.00	0.00
C	FIRST FLOOR & HEAD ROOM	Cum	67.06		0.00	0.00	0.00	0.00
11	Fly Ash brick masonry using fly ash bricks of size 25 cm. x 12 cm. x 8 cm. having crushing strength not less than 75 kg. Per Sqr. Cm. in cement mortar of mix (1:4) with ordinary portland cement (OPC) and screened & washed sand for mortar after immersing the bricks for 6 (Six) hours in water before use in Superstructure including splays cutting, circular moulding, corbelling, chamfering and similar such type of works, watering and curing etc. including cost, conveyance, loading, unloading, royalties of all materials, cost of all labour, scaffolding, sundries, T&P required for the works etc. complete in all respect as directed by the Engineer-in-charge							
A	GROUND FLOOR	cum	2.13		0.00	0.00	0.00	0.00
B	FIRST FLOOR HEAD ROOM	cum	5.33		0.00	0.00	0.00	0.00
12	Providing 16 mm. thick cement plaster (1:6) finished smooth to inside brick walls after racking out the joints including watering and curing with cost, conveyance, loading, unloading, royalties of all materials, cost of all labour, T&P, sundries and scaffolding required for the work etc. with providing grooves as directed by the Engineer in charge							
A	GROUND FLOOR	Sqm	809.76		0.00	0.00	0.00	0.00
B	FIRST FLOOR	Sqm	672.45		0.00	0.00	0.00	0.00
13	Providing 6mm thick cement plaster in cement mortar of (1:4) to RCC surfaces such as ceilings of roof slabs, stairs, landings, chajja, shelves, columns, beams and lofts etc. including roughening/chipping, scraping and cleaning and finishing the plastered surface smooth using wooden floats, bars, etc. only to proper plumbs and level, making grooves, beads and drip coarse to give required ornamental finish as per drawing including cost of all materials, conveyance, loading and unloading, royalties, cost of all labour, scaffolding, staging, watering before plastering and curing, sundries and T&P, etc. complete as per direction of the Engineer-in-charge.							
A	GROUND FLOOR	sqm	463.25		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	303.12		0.00	0.00	0.00	0.00
14	Providing 18mm C.P. in two coats underlayer 12mm C.P. 1:5 and top layer 6mm thick C.P. 1:6 finished even and smooth on masonry walls including racking out joints, scrapping and cleaning the surface and finishing the plastered surface smooth to proper plumbs and levels and providing grooves as shown in the drawing including cost of all materials, labour, conveyance, loading and unloading, royalty, scaffolding, watering, curing, sundries, tools and plants, etc., complete excluding GST as per the direction of the Engineer-in-charge.							
A	GROUND FLOOR	sqm	331.63		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	388.88		0.00	0.00	0.00	0.00

17	Providing vitrified tile flooring using Matt vitrified tiles having thickness of 8mm to 10mm conforming to IS 13756 of 600mm x 600mm / 600mm x 300mm Colour & Printed Series (homogeneous) of approved quality of Somany / Kajaria / Asian / Johnson or equivalent in all floors at all height on 20mm thick bed of cement mortar of mix (1:4) laid in proper slope and gradient with screened and washed sharp sand for mortar and grouted with epoxy grout with required quantities of pigments of approved marks to match the shades of the vitrified tile if required watering and curing for 21 days, including cost, conveyance, loading, unloading, royalties and taxes of all materials, cost of all labour, sundries, T&P required for the work, complete in all respect as per specification and direction of Engineer-in-charge.							
A	GROUND FLOOR	sqm	274.85		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	207.60		0.00	0.00	0.00	0.00
18	Supplying , fitting and Fixing Matt finish full body vitrified tile in dado /skirting of 10MM thick, size 600mm x 600mm with water absorption less than 0.3 % of somany / Kajaria of approved make having base price of the tile Rs. 90 / sqft confirming to I.S.15622 laid on 12mm thick cement mortar (1:3) (1 cement : 3 coarse sand) and filling joints with white cement of approved quality including cost of all materials, labour, T&P etc. required for the work all complete as per direction of Architect. (At corridor & lobby area)							
A	GROUND FLOOR	sqm	31.02		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	28.86		0.00	0.00	0.00	0.00
	Providing, fitting & fixing anti-skid ceramic floor tiles in flooring in toilets using special plain/ printed series anti-skid ceramic floor tile of premium grade (having minimum thickness 7 mm to 8 mm & size 300 mm x 300 mm confirming to IS 13755 of approved quality and shade of Somany/ Kajaria on 20mm thick bed of cement mortar of mix (1:4) laid in proper slope and gradient with screened & washed sharp river sand for mortar ceramic floor tiles with neat white cement slurry, mixed with required (tiles are to be immersed in the water for required time before use) quantities of pigments of approved marks to match the shades of the anti-skid ceramic floor tiles if required including cost, conveyance, loading, unloading, stacking, royalties of all material, cost of all labour, sundries, T&P required for the work, watering, complete in all respect as per specification excluding GST as per specification as directed by Engineer-in-charge. (Note-sample of tiles shall be approved before procurement and use)							
A	GROUND FLOOR	sqm	24.19		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	33.64		0.00	0.00	0.00	0.00
	Providing & Fixing tiles of size 30cm x 45 cm glazed ceramic wall tiles of premium grade of approved quality and shade having thickness 8mm to 10mm confirming to IS 13755 in dados skirting and risers of steps on 12mm thick cement plaster (1:3) to proper slope, line and level including cutting to required size and shape, fixing at corners and splays etc including filling the joints with neat white cement slurry mixed with pigments to match the shade of the tiles including cost, Conveyance, loading, unloading, stacking, royalties of all materials, cost of all labour,T&P, sundries, watering and curing for the required period for the work complete in all respect excluding GST as directed by the Engineer-in-charge.(Note- Sample of tiles shall be approved before procurement and use.) (All toilets wall)							

A	GROUND FLOOR	sqm	71.70		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	115.29		0.00	0.00	0.00	0.00
19	Providing Granite stone prepolished 20mm thick of area above 0.40 Sqm in flooring of approved quality, colour and size in floors, treads on steps and landings in all floors at all height on 20mm thick bed of cement mortar of mix (1:4) laid in proper slope and gradient with screened and washed sharp sand for mortar and grouted with neat white cement slurry jointing the tile with neat white cement slurry mixed with required quantities of pigments of approved marks to match the shades of the granite tile if required watering and curing for 21 days, including cost, conveyance, loading, unloading, royalties of all materials, cost of all labour, T&P required for the work etc. complete in all respect as per specification and direction of Engineer-in-charge.							
A	GROUND FLOOR	sqm	48.41		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	20.89		0.00	0.00	0.00	0.00
20	Providing Granite stone prepolished 10mm thick in dado of approved quality, colour and size in dado, riser of steps and dado of landings in all floors at all height on 12mm thick bed of cement mortar of mix (1:3) with screened and washed sharp sand for mortar and grouted with neat white cement slurry jointing the tile with neat white cement slurry mixed with required quantities of pigments of approved marks to match the shades of the granite tile if required watering and curing for 21 days, including cost, conveyance, loading, unloading, royalties of all materials, cost of all labour, T&P required for the work etc. complete in all respect as per specification and direction of Engineer-in-charge.							
A	GROUND FLOOR	sqm	12.03		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	4.49		0.00	0.00	0.00	0.00
21	Providing edge moulding to 18 mm thick granite stone counters, Vanities, steps etc., including machine polishing to edge to give high gloss finish including making three nos of groove over tread etc. complete including cost, conveyance, loading and unloading and ,es of all materials, cost of all labour, sundries, T&P, scaffolding etc. required for the work and complete in all respect as directed by the Engineer in charge.							
A	GROUND FLOOR	rnm	123.75		0.00	0.00	0.00	0.00
B	FIRST FLOOR	rnm	83.77		0.00	0.00	0.00	0.00
25	Providing and fixing in position wood plastic composite door frame with appropriate length of ETA Approved carbon steel galvanized (minimum 5 microns) double threaded 6.8 grade Polyamide PA 6 grade sleeve HRD C 10 anchor suitable for fastenings both on concrete & masonry/aerated blocks including cost of all materials, labours, T & P etc required for the work. complete in all respect as directed by the Architect/Engineer-in-charge							
A	GROUND FLOOR	rnm	71.00		0.00	0.00	0.00	0.00
B	FIRST FLOOR	rnm	97.15		0.00	0.00	0.00	0.00
26	Providing , fitting & fixing of 32mm thick flush door shutter with 32mm thick BWP block board and paisting 1 mm thick laminate to both sides with adhesive including fitting & fixing of all fixtures like godrej make office lock haveing model. No. 6548. Godrej make door clouser having model no- 2701. including cost of all materials, all labour, all T&P etc. required for the work complete in all respect as per the direction of the Engineer-in-Charge excluding G.S.T.							
A	GROUND FLOOR	sqm	3.57		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	7.14		0.00	0.00	0.00	0.00

	Providing , fitting & fixing of 32mm thick flush door shutter with 32mm thick BWP block board,Vision glass panel and paisting 1 mm thick laminate to both sides with adhesive including fitting & fixing of all fixtures like godrej make office lock haveing model. No. 6548. Godrej make door clouser having model no- 2701. including cost of all materials, all labour, all T&P etc. required for the work complete in all respect as per the direction of the Engineer-in-Charge excluding C.S.T.							
A	GROUND FLOOR	sqm	30.96		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	34.92		0.00	0.00	0.00	0.00
27	Supplying, fitting and fixing of M.S grills, Grill window ( as per I.S. specification and as per approved drawings ) in proper position in all floors and at all height including making holes to brick walls/ R.C.C structure/wood work etc. and making good to the damaged walls/ structures with cement concrete (1:2:4) with black hard crusher broken granite stone chips of 12mm to 20mm size ( 20mm size not to exceeds 25% ) including watering and curing etc. complete in all respect as directed by the Engineer in charge ( W.I. / M.S. windows grills, grill gates, collapsible gates with top and bottom rails, steel windows, steel doors, steel frames for doors and windows, staircase and parapet railings square bar along with required nos. of nails and screws and other required materials of approved quality and approved size shall be supplied by the contractor at his own cost.)							
A	GROUND FLOOR	KG	821.75		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	KG	1091.50		0.00	0.00	0.00	0.00
28	Finishing wall surface of walls with <b>wall putty (water based)</b> of approved make and finished smooth and even surface to receive painting including cost of scaffolding staging charges with cost of all materials, labour T&P etc. complete the work as per the direction of engineer incharge.							
A	GROUND FLOOR	sqm	1273.01		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	1335.59		0.00	0.00	0.00	0.00
29	Providing Wall painting with <b>cement primer(oil bound )one coat</b> to the internal wall surface including cost of all materials, labour, Tools & Plant, Brushes etc. complete in all respects as per the direction of engineer incharge.							
A	GROUND FLOOR	sqm	1273.01		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	1335.59		0.00	0.00	0.00	0.00
30	Providing Wall painting with Oil bound distemper paint two and more coats to all New work to get an even shade including cost of all materials, labour, Tools & Plant, Brushes etc. complete in all respects as per the direction of engineer incharge (interior)							
A	GROUND FLOOR	sqm	1273.01		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	1335.59		0.00	0.00	0.00	0.00
31	Painting to external surface of building with <b>two coats of weather seal coat</b> of approved shade and quality of approved design after cleaning by watering & removing the dirts etc. to the surface to be painted including watering, curing, cost, conveyance of all materials, cost of all labour, brushes, T&P etc. and necessary scaffolding work complete as directed by the Engineer-in-charge.							
A	GROUND FLOOR	sqm	331.63		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	388.88		0.00	0.00	0.00	0.00
31	Providing Wall painting with <b>cement primer(water bound) one coat to the external wall surface</b> including cost of all materials, labour, Tools & Plant, Brushes etc. complete in all respects.							

A	GROUND FLOOR	sqm	331.63		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	388.88		0.00	0.00	0.00	0.00
32	Providing and painting <b>two coats with synthetic enamel paint</b> of approved quality and approved shade confirmming to ISI on steel work to give an even shade in all floors at all height over a coat of primer of approved quality and shade including sand papering and making the surface smooth with cost, coveyance, loading and unloading, of all materials, cost of all labour, sundries, T&P, scaffolding etc. required for the work and complete in all respect as directed by Engineer in charge.							
A	GROUND FLOOR	sqm	16.44		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	28.82		0.00	0.00	0.00	0.00
33	Providing approved primer of one coat to the Iron work including cost of all materials, labour, Tools & Plant, Brushes etc. complete in all respects as directed by Engineer-In-Charge.							
A	GROUND FLOOR	sqm	16.44		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	28.82		0.00	0.00	0.00	0.00
34	Supplying, fitting and fixing of Stainless steel of 304 grade in hand railing using 50mm dia of 2mm thick circular pipe with Balustrade of size 32mm x 32mm x 2mm @ 0.90mtr. C/C and stainless square pipe bracing of size 32mm x 32mm x 2mm in 3 rows in stair case as per approved design and specification, buffing, polishing etc with cost, conveyance, cost of all labour,labour cess, T&P etc. required for the work complete in all respect as per direction of the Engineer-in-charge.							
A	GROUND FLOOR	kg	75.38		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	kg	75.38		0.00	0.00	0.00	0.00
35	Providing 2.5 cm thick grading concrete(1:2:2) on roof slab using 6mm size hard granite chips including hoisting, lowering, laying, concrete with watering, curing in all floors with cost, conveyances, royalty of all materials, all labour, labour cess, T&P etc. complete as per direction of the Engineer in charge							
A	FIRST FLOOR & HEAD ROOM	Sqm	304.34		0.00	0.00	0.00	0.00
36	Providing & applying of pre constructional anti-termite treatment by drilling 12mm dia holes at distance of 30cm @ junction of wall & floor about 300mm apart deep enough to reach the soil below & chemical emulsion (PREMISE, IMIDACHLOPRIED 30.5SC OF BAYER MAKE mixed with 47.5ltr water) pumped these holes to soak the soil @ 1 ltr solution of each hole as per manufactures specification & the holes should be plugged the filling materials including cost of all materials, labour,conveyance, T&P , all taxes and hire charges of machinaries as per direction of Engineer-in-charge.	Sqm	224.23		0.00	0.00	0.00	0.00
37	Providing and fixing of UPVC sliding windows 2 track sliding-60 series/Top hung ventilator of any approved make ,duly manufactured using upvc reinforced profiles of 62mm x 60mm x 2.25mm for outer frame, 66mm x 38mm x 2.25mm for sliding shutter frames capable of mounting single glazing system,structurally reinforced with hot dip galvanised upto 50 microns of minimum thickness of 1.2 mm prefabricated and welded through fusion welding & the window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal including the cost of all materials,necessary locking arrangements ,fittings,cost of labour,T&P ,etc complete as per direction of Engineer-in-charge.							
A	GROUND FLOOR	sqm	36.17		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	43.66		0.00	0.00	0.00	0.00

36	<p>Waterproofing to the roof slab</p> <p>(a) Surface preparation : Cleaning the surface thoroughly by chipping the roof slabs using breakers, wire brush, mechanical grinder for making it free from all loose particles, dust etc. then total cleaning through air blower followed by water jetting and allowing the surface to dry.</p> <p>(b) Application : Supply and application of Nano Technology OrganoSilane based Zycosil + @ 1:20 (one part Zycosil + and 20 parts of clean water) to the saturation level on the entire flat surface and upto 300mm (1ft.) to the parapet walls and then allowing for drying 24 hrs., test the surface for hydrophobicity. Then application of 100% acrylic co-polymer Zycoprime+, cement and fine sand (100 mesh) mixed at a consistency of paste form and filling drainage pipes gaps. Then application of one coat of Zycoat mix of Zycoprime + and grey cement @ 1:1.5 ratio ( 1 part Zycoprime + and 1.5 part cement). 2nd coat of Zycoat mix to be applied after the drying of first coat in the same procedure followed by sprinkling of sieved sand on the top of the slurry. Then allow it to dry followed by proper curing with water for at least two days.</p> <p>(c) Coving : Coving has to be done with Zycomix (a mortar prepared with Zycoprime+, cement and sand in the ratio of 1:5:15 and water as per workability to obtain a uniform paste). Finally cure with water to the entire treated roof and parapet wall for three days.</p>							
a	FIRST FLOOR	SQM	304.34		0.00	0.00	0.00	0.00
	<p>Water proofing to the sunken slab</p> <p>(a) Surface preparation : Cleaning the surface thoroughly by wire brush, mechanical grinder for making it free from all loose particles, dust etc. then total cleaning through air blower followed by water jetting and then allowing the surface to dry.</p> <p>(b) Application before PCC : Supply and application of Nano Technology OrganoSilane based Zycosil+@ 1:20 (one part Zycosil+ and 20 parts of clean water) to the saturation level on the entire flat surface and upto to the height of the sunken slab casted and then allowing for drying 24 hrs., test the surface for hydrophobicity.</p> <p>(c) Coving : Coving has to be carried on with Zycomix (a mortar prepared with Zycoprime+, cement and sand in the ratio of 1:5:15 and water as per workability to obtain a uniform paste). This should be followed by application of Zycoat on the corner surface of the sunken slabs. The above Zycomix must be applied in the gaps of pipe joints in the sunken slabs followed by application of Zycoat. (Note : The above application " b &amp; c" should be done before PCC)</p> <p>□</p>	sqm	22.22		0.00	0.00	0.00	0.00

	(d) Application after PCC: Supply and application of Nano Technology OrganoSilane based Zycosil+@ 1:20 (one part Zycosil+ and 20 parts of clean water) to the saturation level on the entire flat PCC surface and upto to 1 mtr height of the wall. This should be done on a sound PCC surface with sufficient curing and drying. Then application of one coat of Zycoat (1 part Zycoprime+ mixed with 1.5 part cement) on Zycosil+ treated surface followed by one coat of Elastocoat (mixing of 100% acrylic co-polymer high strength elongation of 200 - 250% Elastobar 1 part and grey cement 1 part) with the help of brush. Then allow it to dry followed by proper curing with water for at least 3 days.							
	Providing & filling sunken slab with 40mm size brick bat with overburnt kiln burnt bricks including filling, compacting, watering , levelling the same as per the direction of Engg-in-Charge with all material,labour, scaffolding, tools, plant etc for complete	cum	3.33		0.00	0.00	0.00	0.00
	Providing and fixing removable Raised/False Flooring System with system and its components of approved make for different plenum height with possible height adjustment upto 50 mm, comprising of modular load bearing floor panels supported on G.I. rectangular stinger frame work and G.I. Pedestal Providing at required spacing to form modular framework, pedestals made out of GI tube of thickness minimum 2 mm and 25 mm outer diameter, fully welded on to the G.I. Base plate of size 100 mm x 100 mm x 3 mm at the bottom of the pedestal tube, G.I. pedestal head of size 75 mm x 75 mm x 3.5 mm welded with CI fully threaded stud 16 mm outer diameter with two GI Check nuts screwed on the stud for level adjustment upto 50 mm, locking and stabilizing the pedestal head in position at the required level. Access Floor panel of 600 x 600 x 32 mm medium grade Filled Steel anti static high pressure Lamination of 800H grade (FS800H).							
	Access Floor panel shall be steel welded construction with an enclosed bottom pan with uniform pattern of 64 hemispherical cones.The access floor shall be factory finished with Anti-static High Pressure laminate with Non Warp technology upto 1 mm thickness for superior adhesion and Surface flatness within 0.75 mm. The panel into withstand a Concentrated Load of 363 kgs applied on area 25 mm x 25 mm without collapse in the centre of the panel which is placed on four steel blocks.The panel will withstand and Uniformly Distributed Load (UDL) minimum 1250 kg/sqm and an impact load of 50 kg all complete as per the approved manufacturers specification and as per the direction of Engineer-in-charge							
	FIRST FLOOR	SQM	56.06		0.00	0.00	0.00	0.00
	<b>TOTAL CIVIL WORKS-CONTROL ROOM BUILDING (B.1)</b>							<b>0.00</b>
<b>B.2</b>	<b>PLINTH PROTECTION</b>							
<b>1</b>	Earth work in excavation in all kinds of soil (Ordinary, hard soil & stoney earth soil ) for foundation trenches within 50m. Initial lead and 1.5m initial lift including rough dressing and beaking clods to maximum 5 cm to 7 cm and laying in layers not exceeding 0.3 m in depth and as per specification approved by the department	CUM	9.00		0.00	0.00	0.00	0.00
<b>2</b>	Supplying, filling in foundation and plinth with sand including watering and ramming with cost, conveyance, royalties of sand with labour and T&P required for the work etc. complete (Measurement will be taken on finished compacted section only)	CUM	10.13		0.00	0.00	0.00	0.00

3	Providing & laying Plain Cement concrete (PCC ) of proportion (1:4:8) in foundation and floors using 4cm (1½") size clean hard black crusher broken granite stone metal of approved quality and from approved quarry including hoisting, lowering and laying concrete in layers not exceeding 15 cm. (6") thick to the required level ramming, watering, curing etc. complete including cost, conveyance, royalties and ,es of all materials with all labour, cess and T&P required for the work etc. complete in all respect.	CUM	4.05		0.00	0.00	0.00	0.00
4	Providing & laying Plain cement concrete (1:2:4) using 12mm size black hard crusher broken granite chips of approved quality from approved quarry including hoisting, lowering and laying concrete in layers, watering, curing etc. complete including cost, conveyance, royalties of all materials with labour, cess and T&P etc. required for the work complete	CUM	2.70		0.00	0.00	0.00	0.00
5	Providing Brick work with Fly ash bricks 23cm x 11cm x 8cm size having crushing strength not less than 75 kg/cm2 with dimensional tolerance +/- 2 percent in cement mortar (1:6) ( 1 cement: 6 sand), with all necessary projection, splay cutting, circular moulding, corbelling, etc., including cost of all materials, labour, conveyance, loading ,and unloading, royalties, scaffolding, watering, curing, sundries, tools and plants, etc., as per the direction of the Engineer-in-charge	CUM	10.80		0.00	0.00	0.00	0.00
6	Providing 12 mm. thick cement plaster in all floors at all height with cement mortar of mix (1:6) with portland slag cement (PSC) finished smooth to inside rough surface of brick masonry walls after racking out joints including watering and curing rounding of corners etc. complete with cost, coveyance, loading and unloading, royalties and ,es of all materials and cost of all labour, T&P, sundries and scaffolding required for the work etc. with providing grooves as directed by the Engineer in charge.	SQM	45.00		0.00	0.00	0.00	0.00
<b>TOTAL CIVIL WORKS-PLINTH PROTECTION (B.2)</b>								<b>0.00</b>
<b>B.3</b>	<b>COVERED DRAIN</b>							
1	Earth work in excavation in all kinds of soil (Ordinary, hard soil & stoney earth soil ) for foundation trenches within 50m. Initial lead and 1.5m initial lift including rough dressing and beaking clods to maximum 5 cm to 7 cm and laying in layers not exceeding 0.3 m in depth and as per specification approved by the department	CUM	50.63		0.00	0.00	0.00	0.00
2	Supplying, filling in foundation and plinth with sand including watering and ramming with cost, conveyance, royalties of sand with labour and T&P required for the work etc. complete (Measurement will be taken on finished compacted section only)	CUM	10.13		0.00	0.00	0.00	0.00
3	Providing & laying Plain Cement concrete (PCC ) of proportion (1:3:6) in foundation and floors using 4cm (1½") size clean hard black crusher broken granite stone metal of approved quality and from approved quarry including hoisting, lowering and laying concrete in layers not exceeding 15 cm. (6") thick to the required level ramming, watering, curing etc. complete including cost, conveyance, royalties and ,es of all materials with all labour, cess and T&P required for the work etc. complete in all respect.	CUM	10.13		0.00	0.00	0.00	0.00

<b>4</b>	R.C.C. work of Grade- M 25 in following works using 20mm size & down graded hard black crusher broken granite stone chips of approved quality from approved quarry in specified proportion including hoisting, lowering, laying and compacting concrete, watering and curing and finishing the exposed surfaces smooth with cost, conveyance, royalties, taxes of all materials with all labour and T&P required for the work etc. complete in all respect but excluding the cost and conveyance of M.S./TMT/HYSD rods or Tor steel and binding wire of 18 to 20 gauge and labour charges for straightening, cutting, bending, binding and tying the grills and placing in proper position, centering & shuttering							
<b>a)</b>	R.C.C. floor and roof slabs, landings, balconies, projecting sun shades and chajjas upt 4.3m height	CUM	13.50		0.00	0.00	0.00	0.00
<b>5</b>	Reinforcement for RCC work including straightening, cutting, bending, placing in position HYSD and binding all complete. lifting and placing in position as per design complete including cost of bars , binding wires , including cost of all materials, labour, conveyance, loading and unloading,, royalties, sundries, tools and plants, etc. complete as per the direction of the Engineer-in-charge. (linear measurement will be taken and quantity will be calculated on standard weight for all heights)-Thermo Mechanically Treated bars	QNTL	6.75		0.00	0.00	0.00	0.00
<b>6</b>	Providing Brick work with Fly ash bricks 23cm x 11cm x 8cm size having crushing strength not less than 75 kg/cm2 with dimensional tolerance +/- 2 percent in cement mortar (1:6) ( 1 cement: 6 sand), with all necessary projection, splay cutting, circular moulding, corbelling, etc., including cost of all materials, labour, conveyance, loading ,and unloading, royalties, scaffolding, watering, curing, sundries, tools and plants, etc., as per the direction of the Engineer-in-charge	CUM	20.25		0.00	0.00	0.00	0.00
<b>7</b>	Providing neat cement punning over plastered/ concrete surface including watering and curing complete with cost, coveyance, loading and unloading, royalties of all materials and cost of all labour, T&P and scaffolding required for the work etc. as directed by the Engineer in charge.	SQM	157.50		0.00	0.00	0.00	0.00
<b>8</b>	Providing 12 mm. thick cement plaster in all floors at all height with cement mortar of mix (1:6) with portland slag cement (PSC) finished smooth to inside rough surface of brick masonry walls after racking out joints including watering and curing rounding of corners etc. complete with cost, coveyance, loading and unloading, royalties and ,es of all materials and cost of all labour, T&P, sundries and scaffolding required for the work etc. with providing grooves as directed by the Engineer in charge.	SQM	157.50		0.00	0.00	0.00	0.00
<b>TOTAL - COVERED DRAIN (B.3)</b>								<b>0.00</b>
<b>B.4</b>	<b>P H WORKS</b>							
<b>1</b>	Providing, Supplying & Fixing of Rimless, Blind Installation wall Hung WC of CERA (CAT NO S1059102and Cistern-B1510121), (Size :520x360x390mm) with PP soft close slim seat cover (Cat. No. B1510121 Cajol seat cover), Hinges, Accessories with all fittings & fixtures complete including making good the damages . including cost of all materials, labour, T&P, lead, royalty etc.complete in all respects as per direction of Architect /Engineer in charge.	EACH	6.00		0.00	0.00	0.00	0.00

<b>2</b>	Providing, Supplying & Fixing of Toilet roll Holder with Stainless steel flap of CERA (CAT- F5001109) with all fittings & fixtures complete including making good the damages . including cost of all materials, labour, T&P, lead, royalty etc.complete in all respects as per direction of Architect /Engineer in charge.	EACH	6.00		0.00	0.00	0.00	0.00
<b>3</b>	Providing, Supplying & Fixing of Hand Shower (Health Faucet) with 8mm dia, 1.2m long flexible tube and wall hook of CERA (F8030103)with all fittings & fixtures complete including making good the damages . including cost of all materials, labour, T&P, lead, royalty etc.complete in all respects as per direction of Architect /Engineer in charge.	each	6.00		0.00	0.00	0.00	0.00
<b>4</b>	Providing, Supplying & Fixing of Stop cock, male end with wall flange of CERA(F1018201) will all fittings & fixtures complete including making good the damages including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Architec/Engineer in charge.	each	6.00		0.00	0.00	0.00	0.00
<b>5</b>	Providing, Supplying & Fixing of 2 Way Bib cock with wall flange of CERA (F1018163) with all fittings & fixtures complete including making good the damages. including cost of all mateials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Engineer in charge.	each	6.00		0.00	0.00	0.00	0.00
<b>6</b>	Providing, Supplying & Fixing Basin of CERA of size 515x410x195 mm (CAT-NO. S2040120) with full pedestal height 850MM (CAT NO. S2090113 ) with all fitings & fixtures complete including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Engineer in charge	EACH	8.00		0.00	0.00	0.00	0.00
<b>7</b>	Providing, Supplyin & Fixing of Basin inlet connection (angle valve) of CERA (F1018201) with all fittings & fixtures complete including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Engineer in charge	EACH	8.00		0.00	0.00	0.00	0.00
<b>8</b>	Providing, Supplying & Fixing Glass Shelf 300X300mm long of CERA (F5005103) with all fittings & fixtures complete including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Engineer in charge	EACH	8.00		0.00	0.00	0.00	0.00
<b>10</b>	Providing, Supplying & Fixing pillar cock with aerator with long screws, shanks and back nuts of CERA (CAT-F2007101) with all fittings & fixtures complete including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Engineer in charge.	each	8.00		0.00	0.00	0.00	0.00
<b>11</b>	Providing, Supplying & Fixing standard sized Single Towel rail of 600mm long, stainless steel complete with Chromiun Plated brass brackets of CERA (F5003103) with all fittings & fixtures complete including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Engineer in charge.	each	6.00		0.00	0.00	0.00	0.00
<b>12</b>	Providing, Supplying & Fixing standard sized Chromium Plated brass towel ring(round) of CERA (F5003105) with all fittings & fixtures complete including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Engineer in charge.	EACH	8.00		0.00	0.00	0.00	0.00

<b>13</b>	Providing, Supplying & Fixing Soap dish holder of CERA (F5007105) with all fittings & fixtures complete including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Engineer in charge.	EACH	14.00		0.00	0.00	0.00	0.00
<b>14</b>	Providing, Supplying & Fixing Towel Shelf 600mm long with lower hangers, stainless steel complete with Chromium Plated brass brackets ofCERA (F5007101) with all fittings & fixtures completer including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Engineer in charge.	EACH	6.00		0.00	0.00	0.00	0.00
<b>15</b>	Providing, Supplying & Fixing of Bib cock short body (with straight line model) with wall flange polished bright ofCERA (F2013151) with all fittings & fixtures completer including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Engineer in charge.	each	6.00		0.00	0.00	0.00	0.00
<b>16</b>	Providing, Supplying & Fixing of Long body Bib cock with wall flange polished bright of CERA (CAT-SQT-512KN) with all fittings & fixtures completer including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Engineer in charge.	each	6.00		0.00	0.00	0.00	0.00
<b>17</b>	Providing, Supplying & Fixing Overhead shower 70mm Round shape single flow (ABS Body Chrome plated with Gray face plate) with Rubit cleaning system (EOS-542A) and Shower arm 235mm long (Light weight) round shape for wall mounted showers with wall flange (ALE-536A) of CERAwth all fittings & fixtures completer including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Engineer in charge.	each	6.00		0.00	0.00	0.00	0.00
<b>18</b>	Providing, Supplying & Fixing of Concealed Stop cock, Heavy Body with Cap of CERA (F1018201) with all fittings & fixtures completer including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Engineer in charge.	each	6.00		0.00	0.00	0.00	0.00
<b>19</b>	Providing, Supplying & Fixing Double Coat hook ofCERA (F5003108) with all fittings & fixtures completer including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Engineer in charge.	each	6.00		0.00	0.00	0.00	0.00
<b>20</b>	Providing, Supplying & Fixing 600mm x 300mm bevelled edge mirror of superior glass mounted on 5mm thick A.C sheet or plywood sheet with all fittings & fixtures completer including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Engineer in charge.	EACH	8.00		0.00	0.00	0.00	0.00
<b>21</b>	Providing & Fixing of PVC nahani trap with 125mm stainless steel grating with/without hole for waste pipe in floors / at any location cost includes all materials, labour, tools,plant etc. complete in all respects.as per price list of ASTRAL	EACH	12.00		0.00	0.00	0.00	0.00
<b>22</b>	Fixing bowl pattern urinal conforming to IS 2556 : Part 6-1996 including connecting the urinal of 330x310x420 mm size with waste pipe by means of white lead mixed with chopped hemp etc all complete as per specification. (CERA MAKE CAT-F5001109)	EACH	6.00		0.00	0.00	0.00	0.00

<b>23</b>	Supplying all materials, labour, T&P and fitting and fixing U-PVC SWR soil waste ventilating pipes (type-A / ring fit type ) with all PVC fittings of ASTRAL/AJAY/SUPREME make as per IS 13592 to walls with nails, bobbins and laying in trenches including all pipe fittings, jointing materials, tools plant, labour & all material, earthwork in excavation in all kinds of soil and refilling of trenches as per specification and direction of the engineer in charge.							
<b>24</b>	160mm dia PVC (SWR) pipe class "A" ( with wall thickness of 3.2mm to 3.8mm)	MTR	50.00		0.00	0.00	0.00	0.00
<b>25</b>	110 mm dia PVC (SWR) pipe Class 'A' (with wall thick of 2.20 mm to 2.70 mm)	MTR	50.00		0.00	0.00	0.00	0.00
<b>26</b>	75 mm dia PVC (SWR) pipe Class 'A' (with wall thick of 1.8 mm to 2.20 mm )	MTR	50.00		0.00	0.00	0.00	0.00
<b>27</b>	Providing all materials, labour and T&P for fixing of Upvc SWR fittings							
<b>a</b>	75 x 75 x 75mm single Tee with door	Each	10.00		0.00	0.00	0.00	0.00
<b>b</b>	110 x 110 x 110 mm single Tee with door	Each	10.00		0.00	0.00	0.00	0.00
<b>c</b>	75 x 75 x 75mm single Tee without door	Each	5.00		0.00	0.00	0.00	0.00
<b>d</b>	110 x 110 x 110 mm single Tee without door	Each	5.00		0.00	0.00	0.00	0.00
<b>e</b>	160 x 160x 110 mm Reducing Tee with door	Each	10.00		0.00	0.00	0.00	0.00
<b>f</b>	110 x 110 x 75 mm Reducing Tee with door	Each	10.00		0.00	0.00	0.00	0.00
<b>g</b>	75 mm x 87.50 Plane Bend	Each	40.00		0.00	0.00	0.00	0.00
<b>h</b>	110 mm x 87.50 Plane Bend	Each	40.00		0.00	0.00	0.00	0.00
<b>i</b>	75mm coupler	Each	40.00		0.00	0.00	0.00	0.00
<b>j</b>	110mm coupler	Each	50.00		0.00	0.00	0.00	0.00
<b>k</b>	75 mm vent cowl with SS Jali	Each	20.00		0.00	0.00	0.00	0.00
<b>l</b>	110 mm vent cowl with SS Jali	Each	20.00		0.00	0.00	0.00	0.00
<b>m</b>	75mm pipe clip	Each	50.00		0.00	0.00	0.00	0.00
<b>n</b>	110mm pipe clip	Each	50.00		0.00	0.00	0.00	0.00
<b>o</b>	160mm pipe clip	Each	50.00		0.00	0.00	0.00	0.00
<b>p</b>	110 mm x 75 mm Nahani Trap without Jali	Each	12.00		0.00	0.00	0.00	0.00
<b>q</b>	110 mm Square Gully Trap	Each	6.00		0.00	0.00	0.00	0.00
<b>r</b>	125 x 110mm WC Connector	Each	8.00		0.00	0.00	0.00	0.00
<b>s</b>	110mm WC Connector (Bend)	Each	8.00		0.00	0.00	0.00	0.00
<b>t</b>	110mm WC Connector (Straight)	Each	8.00		0.00	0.00	0.00	0.00
<b>28</b>	Providing and laying in trench cement concrete ( 1:4:8 ) with 40mm size hard granite metal in the following type of bedding for 150mm diameter including curing complete as per specification	MTR	150.00		0.00	0.00	0.00	0.00
<b>29</b>	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes of ( ASTRAL/AJAY/SUPREME) confirming to ASTM F442 Specific-2 having thermal stability for hot & cold water supply SDR 11 , including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.							
	<b>Internal work</b>							
<b>V</b>	GROUND FLOOR							
<b>a</b>	15 mm nominal outer dia Pipes	MTR	25.00		0.00	0.00	0.00	0.00
<b>b</b>	20 mm nominal outer dia Pipes	MTR	25.00		0.00	0.00	0.00	0.00
<b>c</b>	25 mm nominal outer dia Pipes	MTR	20.00		0.00	0.00	0.00	0.00
<b>VI</b>	FIRST FLOOR							
<b>a</b>	15 mm nominal outer dia Pipes	MTR	25.00		0.00	0.00	0.00	0.00
<b>b</b>	20 mm nominal outer dia Pipes	MTR	25.00		0.00	0.00	0.00	0.00
<b>c</b>	25 mm nominal outer dia Pipes	MTR	20.00		0.00	0.00	0.00	0.00

<b>30</b>	Providing all materials, labour, T&P for laying/fixing to wall or ceiling and floor uPVC solvent weld pipe Sch-80 as per ASTM-D-1785 and pipe fittings of following nominal bore with clamps including making good the wall, ceiling & floor all complete as per specification.							
	External work							
<b>V</b>	GROUND FLOOR							
<b>a</b>	40 mm nominal outer dia Pipes	MTR	20.00		0.00	0.00	0.00	0.00
<b>VI</b>	FIRST FLOOR							
<b>a</b>	40 mm nominal outer dia Pipes	MTR	10.00		0.00	0.00	0.00	0.00
<b>b</b>	50 mm nominal outer dia Pipes	MTR	150.00		0.00	0.00	0.00	0.00
<b>31</b>	Cutting grooves in pucca floors and walls for taking GI/PVC /CPVC pipes including making good the damages caused with cost of all material,labour, scaffolding, tools, plant, royalty etc. complete in all respects.	MTR	200.00		0.00	0.00	0.00	0.00
<b>32</b>	Supplying all materials, jointing materials, labour and T&P and fixing of uPVC pressure fittings (Sch-80) as per ASTM-D 2467 (Make: ASTRAL)							
<b>a</b>	20 mm	EACH	10.00		0.00	0.00	0.00	0.00
<b>b</b>	25 mm	EACH	10.00		0.00	0.00	0.00	0.00
<b>c</b>	32 mm	EACH	10.00		0.00	0.00	0.00	0.00
<b>d</b>	40 mm	EACH	10.00		0.00	0.00	0.00	0.00
<b>e</b>	50 mm	EACH	10.00		0.00	0.00	0.00	0.00
<b>33</b>	Supplying all materials,labours,T&P and cutting holes through existing brickwork including making good the damages in cement mortar (1:4) for taking GI /CPVC /PVC pipes and fittings etc all complete as per PH specification and direction of Engineer-in-charge	EACH	150.00		0.00	0.00	0.00	0.00
<b>34</b>	Supplying all materials,labour,T&P and fixing Rotational moulded polyethylene cylindrical vertical water storage tanks conforming to IS : 12701--1996 including cutting holes through the tank and fixing mild steel tubes and fittings and providing extra sockets and jam nuts, fixing ball valve etc, including hoisting upto a height of 5 metres above ground level and placing the tank to the required position and providing 1st class Fly ash brickwork in cement mortar (1:6) of 0.46m height in staging and in circular protection wall to support the tank, 12mm thick cement plaster (1:6) over brickwork, R.C.C slab of size 1.60mx1.60m and 0.10m thick, R.C.C beam of 0.25mx0.30m and 2.60m average length in cement concrete(1:2:4) using 12mm size h.g chips including centering and shuttering, watering, curing, conveyance of all materials to worksite etc all complete as per specification and direction of the Engineer in charge. Fixing 2000Ltr Roto-moulded water storage tank (Syntax Make) In first Floor	NO	1.00		0.00	0.00	0.00	0.00
	<b>Total -P H WORKS (B.4)</b>							<b>0.00</b>
<b>B.5</b>	<b>SEPTIC TANK &amp; SOAK PIT</b>							
<b>1</b>	Earth work in excavation in all kinds of soil (Ordinary, hard soil & stoney earth soil ) for foundation trenches within 50m. Initial lead and 1.5m initial lift including rough dressing and beaking clods to maximum 5 cm to 7 cm and laying in layers not exceeding 0.3 m in depth and as per specification approved by the department	CUM	57.02		0.00	0.00	0.00	0.00
<b>2</b>	Extra lift of 1.5m or part there of over the initial lift of 1.5m in all kinds earth work ( 1st extra lift of 1.5mt (upto 7.5m)	CUM	51.84		0.00	0.00	0.00	0.00
<b>3</b>	Filling foundation trenches and plinth with excavated earth including laying the earth in layers not exceeding 23.5cm (9") thick ramming and watering with all leads and lifts including cost of all labour, T&P etc. complete as directed by the Engineer-in-charge	CUM	11.40		0.00	0.00	0.00	0.00

<b>4</b>	Supplying, filling in foundation and plinth with sand in 22.5 cm (9") thick layers including watering and ramming with cost, conveyance, royalties and taxes of sand with labour and T&P required for the work etc. complete (Measurement will be taken on finished compacted section only).	CUM	4.32		0.00	0.00	0.00	0.00
<b>5</b>	Providing & laying Plain Cement concrete (PCC ) of proportion (1:3:6) in foundation and floors using 4cm (1½") size clean hard black crusher broken granite stone metal of approved quality and from approved quarry including hoisting, lowering and laying concrete in layers not exceeding 15 cm. (6") thick to the required level ramming, watering, curing etc. complete including cost, conveyance, royalties and taxes of all materials with all labour, cess and T&P required for the work etc. complete in all respect.	CUM	4.32		0.00	0.00	0.00	0.00
<b>6</b>	Cutting, straightening coiled or bent up M.S. rods, HYSD steel or Tor Steel welding or jointing if necessary, bending, binding, tying the grills as required for RCC works, and hoisting, lowering and placing in proper position according to approved designs and drawings including cost, conveyance, loading, unloading, M.S. rods, HYSD steel or Tor steel and binding wires of 18 to 20 gauge required for the work and cost of all labour, sundries, T&P and scaffolding complete in all respect as directed by the Engineer-in-Charge (payment will be made according to the actual weight of M.S. rod, HYSD steel or Tor steel consumed in the work and no separate payment will be made towards weight of binding wires which is to be borne by the contractor at his own cost).	CUM	2.88		0.00	0.00	0.00	0.00
<b>7</b>	Providing strong, rigid, leveled, and plumbed centering and shuttering to required shape and size , for floors with ply or steel centering materials with all necessary bracing and tiles and supports with leveling centering covered with plastic sheet with provisions necessary holes and pockets for electrical conduits, pipes, P.H. pipes, for hooks or boxes, switch and board insert plates, clamps and extension bars etc., including dismantling the same after the required interval from the date of casting including cost of all materials, labour, conveyance, loading and unloading, taxes, royalties, scaffolding, watering, curing, sundries, tools and plants, etc., complete as per the direction of the Engineer-in-charge.							
<b>A</b>	R.C.C. floor and roof slabs, landings, balconies, projecting sun shades and chajjas upto 4.3m height	SQM	28.80		0.00	0.00	0.00	0.00
<b>8</b>	Reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete. lifting and placing in position as per design complete including cost of bars , binding wires , including cost of all materials, labour, conveyance, loading and unloading, taxes, royalties, sundries, tools and plants, etc. complete as per the direction of the Engineer-in-charge. (linear measurement will be taken and quantity will be calculated on standard weight for all heights)-Thermo Mechanically Treated bars	QNTL	2.88		0.00	0.00	0.00	0.00
<b>9</b>	Providing Brick work with Fly ash bricks 25cm x 12m x 8cm size having crushing strength not less than 75 kg/cm2 with dimensional tolerance +/- 2 percent in cement mortar ( 1 cement: 6 sand), with all necessary projection, splay cutting, circular moulding, corbelling, etc., including cost of all materials, labour, conveyance, loading ,and unloading, taxes, royalties, scaffolding, watering, curing, sundries, tools and plants, etc., as per the direction of the Engineer-in-charge							
	Foundation & Plinth	CUM	25.99		0.00	0.00	0.00	0.00

<b>10</b>	Providing 16 mm. thick cement plaster in all floors at all height with cement mortar of mix (1:6) with portland slag cement (PSC) finished smooth to inside rough surface of brick masonry walls after racking out joints including watering and curing rounding of corners etc. complete with cost, conveyance, loading and unloading, royalties and taxes of all materials and cost of all labour, T&P, sundries and scaffolding required for the work etc. with providing grooves as directed by the Engineer in charge.	SQM	107.58		0.00	0.00	0.00	0.00
<b>11</b>	Providing neat cement punning over plastered/ concrete surface including watering and curing complete with cost, conveyance, loading and unloading, royalties and taxes of all materials and cost of all labour, T&P, sundries and scaffolding required for the work etc. as directed by the Engineer in charge.	SQM	107.58		0.00	0.00	0.00	0.00
<b>12</b>	Providing 6 mm. thick cement plaster in all floors at all height with cement mortar of mix (1:4) with portland slag cement (PSC) finished smooth to inside rough surface of brick masonry walls after racking out joints including watering and curing rounding of corners etc. complete with cost, conveyance, loading and unloading, royalties and taxes of all materials and cost of all labour, T&P, sundries and scaffolding required for the work etc. with providing grooves as directed by the Engineer in charge.	SQM	28.80		0.00	0.00	0.00	0.00
<b>13</b>	Supplying & Fixing of Manhole cover ( heavy duty ) 450mm x 450mm water tight type including frame cost includes all material,labour, tax,lead tools & plant etc. complete	NO	2.00		0.00	0.00	0.00	0.00
<b>14</b>	<b>Supplying all materials,labours,T&amp;P and constructing 1.22m dia and 2.1m depth soakway pit with precast RCC rings joined loose,gravel backing in the rear of well steining,precast RCC cover slab in cement concrete (1:2:4) using 12mm size hg chips fitted with iron lifting handles including cutting hole in the rings for inlet pipe,earthwork in open well excavation in all kinds of soil and refilling of cavity around the pit &amp; painting the iron works, watering, curing, conveyance of all materials to worksite, payment of royalty, taxes etc all complete as per approved specification and direction of Engineer-in-charge</b>	NO	1.00		0.00	0.00	0.00	0.00
<b>TOTAL-SEPTIC TANK &amp; SOAK PIT (B.5)</b>								<b>0.00</b>
<b>B.6</b>	<b>BORE WELL</b>							
<b>1</b>	Conducting VES Test for locating feasible site for drilling of bore well with minimum yield of 1.75 LPS and above (Minimum 3 VES Test are to be conducted for one location) including 20% failed VES Tests and as per direction of the Engineer-in-charge							
<b>2</b>	Labour for drilling a perfectly vertical bore hole of specified dia for a specified depth below ground level through consolidated and unconsolidated rock with down the hole hammer rig or combination drilling rig as required to suit the site condition as per direction of the Engineer-in-charge including use of own/hired/leased rigs with its accessories, tools, plants and consumables etc. for lowering of 200mm dia PVC Pipes for housing with or without screen as per the necessity for soft, medium, hard and boulder formation (suitable casing pipe, if required to prevent collapse of over burden is to be provided by the service provider including lowering and withdrawing after completion of the bore well). 200 mm dia to 400mm dia in over burden portion including packing of gravel where ever							

<b>A</b>	Cost of drilling to accommodate 200mm dia pipe lowering 0 to 30 mtrs and above. T=30 Mtr.							
<b>B</b>	Drilling of minimum 150mm dia bore hole in hard rock up to 100 Mtr. & above. T=49 Mtr.							
<b>C</b>	Lowering the casing pipe of 200mm dia with or without slotted pipes as per the necessity from ground level up to 30 meters & above depth and fitted and fixed up in perfectly vertical position, including cutting, threading and slotted pipe and supply and fixing all jointing materials, tools and plants etc. complete and keeping the top of the casing pipe threaded including plugging the bore well to prevent entry of foreign materials from above 0 to 30 meter and above. T=30 Mtr.							
<b>D</b>	Cost of 200mm dia PVC C.S. Class Pipe of reputed make with IS 12818/2010 specification. Manufacturer name should prominently be marked with CIPET test certification in the body of the pipe in indelible ink or stencilled to the satisfaction of Engineer-in-charge. T-30 Mtr.							
<b>3</b>	cleaning and developing the tube well using their own compressor continuously worked till clear and adequate discharge is obtained from the well including supply and use of all necessary equipment and labour as per the direction of the Engineer-in-charge							
<b>4</b>	Conducting yield test through pumping for minimum 6-8 hours including supply of suitable Submersible pump set having capacity of discharge of 3.50 LPS at 100 Mtr. head with 15KVA D.G. Set and a container of 200 ltrs. Capacity as required to suit the site condition as per the direction of the Engineer-in-charge including supply of tools plants labourers for lowering and lifting the pump set and measuring the yield of the bore well							
<b>5</b>	Supplying, lowering and installing testing and commissioning of submersible pump motor sets with the following accessories. Submersible pumping sets of approved make having delivery outlets with built in spring loaded non-return valve capable of delivering 5000lit/hr. against a total head of 25m from all cases directly coupled with submersible motors of suitable H.P. to give the required discharge suitable for operation at 400V, 3 phase 50 c/s A.C. power supply including necessary. G.I. bends, supporting clamps pressure gauge etc. complete.							
<b>6</b>	Floor-cum wall mounting electrical control panel board of suitable size M.S. angles, channels and 16 SWG M.S. sheet complete with connections PVC insulated copper wires of required size including making good the damage and painting complete including the following electrical components. 1 No. automatic star delta starter of approved make. 1 No. single phasing preventor of approved make. 1 No. main switch with HRC fuse. Electronic water level guard of approved make. Ammeter with circuit and selector switch. Voltmeter (0-500V) with selector switch and controlling HRC fuses of approved make. Over load relay. Dry sun protection. Signal lamp. Phase changer.							

	3 phase control switch.							
	Water proof cable sizes 1 x 3 x 2.5 Sqmm. with cable protection pipe from top of wall up to electrical motor control panel, required dia of water column pipe with fittings and metal fixing valves etc. complete.							
	Note - Pumping set as specified above is subject to modification to suit the actual requirement of depth and yield available from the permanent tube well. The payment of the modified pumping set is to be made on the basis of actual cost of the pumping set plus 15% as overhead & profit including all type of levies and taxes.							
7	Supplying and laying 3 core 10 Sqmm. PVC aluminium armoured cable 1100V grade from existing pump room panel from 32 Amp. T.P. switch partly on wall and mainly underground including necessary trench cutting with brick protection 16 Nos. bricks per metre and filling the trench with shifted soil leveling up and restoring the surface duly rammed.							
8	Supplying and fixing compression type gland complete with brass gland insulated cable ends by soldering with cable sockets and insulated tapes etc.							
9	Supplying, fitting and fixing 50mm dia full way valve (heavy quality) ISI marked.							
10	Supplying, fitting and fixing M.S. clamp to hold 50mm dia G.I. pipe and submersible pump set.							
	<b>Rate for Item No. 1 to Item No. 10</b>	SET	1.00		0.00	0.00	0.00	0.00
11	Supplying and fixing complete in operational conditions, including necessary jointing and coupling centrifugal pump self priming type with automatic on/off (make- Crompton Greaves/ KSB/Kirloskar) and motor of specified complete with 50mm x 50mm suction and delivery, motor starter (star/delta) and suitable for lifting water to a height of 25 Mtr approx ( vertical head) complete with connections and accessories etc. complete with a guarantee of one year. (1 H.P. capacity)	NO	1.00		0.00	0.00	0.00	0.00
12	Supplying & fixing G.I. Pipes (TATA medium tube) 50mm dia for connection the suction to the pump & from delivery to the overhead tank with all necessary G.I. fittings such as bends,U , tees, elbows, reducers, sockets, caps, clamps, plugs,union etc. & making good the damages as per drawing including cost of all materials, labour,T&P etc.complete in all respects as per direction of Engineer.	MTR	80.00		0.00	0.00	0.00	0.00
	<b>Total - BOREWELL (B.6)</b>							0.00
<b>B.7</b>	<b>CONTROL ROOM BUILDING ELECTRICALS</b>							
	<b>All the electrical work as mentioned below shall be complete in all aspect for proper, safe operation and as per instruction of site engineer including the cost of all material &amp; accessories, T &amp; P, labour as required.</b>							
<b>1.1(a)</b>	GROUP A :Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required. ((Make :Legrand(Myrius)/MK(elements)/Panasonic(Europa)/Hager(Insysta)	Nos.	30		0.00	0.00	0.00	0.00

<b>(b)</b>	GROUP B: Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required. (((Make :Legrand(Myrius)/MK(elements)/Panasonic(Europa)/Hager(Insysta)	Nos.	40		0.00	0.00	0.00	0.00
<b>(c)</b>	GROUP C: Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required. (((Make :Legrand(Myrius)/MK(elements)/Panasonic(Europa)/Hager(Insysta)	Nos.	60		0.00	0.00	0.00	0.00
<b>(b)</b>	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required. (((Make :Legrand(Myrius)/MK(elements)/Panasonic(Europa)/Hager(Insysta)	Nos.	30		0.00	0.00	0.00	0.00
<b>(d)</b>	Recessed wiring for 5 / 6 amp socket outlet with 2 x 1.5 sq.mm FR PVC insulated single core multistrand copper conductor of ISI marked in recess 20 mm dia non-metallic PVC flexible conduit with modular type switch ,4 module 18SWG modular GI box and earthing point with 1 x 1.5 sq.mm FR PVC insulated single core multistrand copper conductor for loop earthing etc. as required. ( Make of wire Finolex / Anchor / Havels / V Guard/KEI )	Nos.	20		0.00	0.00	0.00	0.00
<b>(e)</b>	Supplying and fixing of 4module GI box with cover on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 5 pin 15 / 16 amps socket outlet and 15 / 16 amps modular type switch, connection, painting etc as required.(Make-Anchor/crabbtree/Legrand)	Nos.	15		0.00	0.00	0.00	0.00
<b>1.2</b>	Recessed wiring for 5 / 6 amp socket outlet with 2 x 1.5 sq.mm FR PVC insulated single core multistrand copper conductor of ISI marked in recess 20 mm dia non-metallic PVC flexible conduit with modular type switch ,6 module 18SWG modular GI box and earthing point with 1 x 1.5 sq.mm FR PVC insulated single core multistrand copper conductor for loop earthing etc. as required. ( Make of wire Finolex / Anchor / Havels /KEI )	Nos.	30		0.00	0.00	0.00	0.00
<b>1.3</b>	Supply and fixing of 20 amp 240 V SPN industrial type socket outlet with 2 pole and earth metal encloser plug top along with 20 amp "C" series SP MCB in sheet steel enclosure on surface or in recess with chained metal cover for the socket outlet and complete connections, testing and commissionig etc. as required.(Make :Legrand (Mylink)/Siemens/Hager)	NO	18		0.00	0.00	0.00	0.00
<b>1.4</b>	Supplying and fixing of 100W,step type regulator, 2 Module without base and cover including connection etc as required.(Make :Legrand(Myrius)/MK(elements)/schneider(Zencelo)	Nos.	36		0.00	0.00	0.00	0.00
<b>1.5</b>	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Nos.	10		0.00	0.00	0.00	0.00
<b>1.6</b>	Supply, delivery, installation and testing of TV Antenna Wires RG6 in PVC Pipe and making good the damages caused complete as required and as per Direction of Engineer-In-Charge. (Make :Legrand(Myrius)/MK(elements)/schneider(Zencelo)	Mtrs.	100		0.00	0.00	0.00	0.00

<b>1.7</b>	Supplying and fixing T.V. antenna socket outlet piano type ISI marked on the existing switchboard / cover including connections etc as requird.	NO	2		0.00	0.00	0.00	0.00
<b>1.8</b>	Supply, delivery and laying of following sizes of 2 mm Wall thickness rigid PVC Conduit Concealed in Wall/ Column/ Roof Slab of the Building or mounted on surface along with other accessories and 18 SWG GI Fish Wire complete for Telephone / TV / Computer / Circuit or Sub main wiring as required & as per Direction of Engineer-In-Charge							
<b>(a)</b>	20 mm dia.	Mtrs.	50		0.00	0.00	0.00	0.00
<b>(b)</b>	25 mm dia.	Mtrs.	60		0.00	0.00	0.00	0.00
<b>1.9</b>	Supplying, delivery, installation, testing and commissioning of Flush mounted Cat 6 Information DUAL Outlet Box.on GI concealed Modular Switch Board including connections and making good the damages caused complete as required & as per Direction of Engineer-In-Charge	Nos.	15		0.00	0.00	0.00	0.00
<b>2</b>	Supplying, laying of UTP 4 PAIR Cat 6 lane 2 run cable Wire in the existing surace/recessed PVC Pipe as required.	Mtrs.	400		0.00	0.00	0.00	0.00
<b>2.1</b>	Supplying, delivery, installation, testing and commissioning of 9U SERVER rack with PDU 6 SOCKET 2 nos ventilating IN-out ans and cable manager including connections and making good the damages caused complete as required & as per Direction of Engineer-In-Charge	Nos.	2		0.00	0.00	0.00	0.00
<b>2.2</b>	Supplying, delivery, installation, testing and commissioning of 24 port 10/100/1000 Mbps managed switch with 4 gigabit sfp slots as per direction of E.I.C	Nos.	2		0.00	0.00	0.00	0.00
<b>2.3</b>	Supplying, delivery, installation, testing and commissioning of 24 port Cats 6 utp patch panel with cable manager as per direction of E.I.C	Nos.	2		0.00	0.00	0.00	0.00
<b>2.4</b>	Supplying, delivery, installation, testing and commissioning of 24 port Cats 6 utp Factory crimped patch cord 1m as per direction of E.I.C	Nos.	20		0.00	0.00	0.00	0.00
<b>2.5</b>	Supplying, delivery, installation, testing and commissioning of 24 port Cats 6 utp Factory crimped patch cord 2m as per direction of E.I.C	Nos.	20		0.00	0.00	0.00	0.00
<b>2</b>	Wiring for Circuits and Submain with following number & sizes of PVC insulated 1100 Volt Grade Multistranded Copper Conductor FRLS Wire run inside 2 mm thick PVC Conduit Pipe Recessed in Ceiling / Column / Walls of Building including supply of all materials such as wires, PVC Conduit, Junction Box & Pull Box etc. complete with making good the damages caused as required and as per Direction of Engineer-In-Charge. (Make of wire Finolex/Anchor/Havels/KEI)							
<b>(a)</b>	2 Nos. Single Core 1.5 mm2 FRLS Copper Wire for Phase and Neutral and 1 No. Single Core 1.5 mm2 FRLS Copper Wire for Earth Continuity Conductor as per SLD (Make of wire Anchor/Havels/KEI)	Mtrs.	200		0.00	0.00	0.00	0.00
<b>(b)</b>	2 Nos. Single Core 2.5 mm2 FRLS Copper Wire for Phase and Neutral and 1 No. Single Core 1.5 mm2 FRLS Copper Wire for Earth Continuity Conductor as per SLD (from LDB to Room & Power Point and Common Light Point looped).(Make of wire Anchor/Havels/KEI)	Mtrs.	220		0.00	0.00	0.00	0.00
<b>(c)</b>	2 Nos. Single Core 4.0 mm2 FRLS Copper Wire for Phase and Neutral and 1 No. Single Core 2.5 mm2 FRLS Copper Wire for Earth Continuity Conductor as per SLD.(Make of wire Anchor/Havels/KEI)	Mtrs.	150		0.00	0.00	0.00	0.00
<b>(d)</b>	2 Nos. Single Core 10.0 mm2 FRLS Copper Wire for Phase and Neutral and 1 No. Single Core 4 mm2 FRLS Copper Wire for Earth Continuity Conductor as per SLD.(Make of wire Anchor/Havels/KEI)	Mtrs.	110		0.00	0.00	0.00	0.00
<b>(e)</b>	4 Nos. Single Core 16.0 mm2 FRLS Copper Wire for Phase and Neutral and 2 No. Single Core 10 mm2 FRLS Copper Wire for Earth Continuity Conductor as per SLD.(Make of wire Anchor/Havels/KEI)	Mtrs.	80		0.00	0.00	0.00	0.00
<b>3</b>	BRANCH DISTRIBUTION BOARDS:							

<b>3.1</b>	Supplying and fixing following way, Three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) 4 way, TPN DB Double door Make:LEGRAND(DX3)/SIEMENS(Betagaurd)/Schneider(Acti 9)/GE	Nos.	2		0.00	0.00	0.00	0.00
<b>3.2</b>	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) 12 way, SPN DB Double door Make:LEGRAND(DX3)/SIEMENS(Betagaurd)/Schneider(Acti 9)/GE	Nos.	2		0.00	0.00	0.00	0.00
<b>3.3</b>	Supplying and fixing following rating, 63 amp 4pole MCB , (Three phase and neutral), 415 V having a sensitivity current 10 KA in the existing MCB DB complete with connections, testing and commissioning etc. as required.	Nos.	2		0.00	0.00	0.00	0.00
<b>3.4</b>	Supplying and fixing following rating, double pole, 40 amp RCCB(single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 300 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required. Make:LEGRAND(DX3)/SIEMENS(Betagaurd)/Schneider(Acti 9)/GE	Nos.	2		0.00	0.00	0.00	0.00
<b>3.3</b>	Supplying and fixing Single pole 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required	Nos.	40		0.00	0.00	0.00	0.00
<b>3.6</b>	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	Nos.	6		0.00	0.00	0.00	0.00
<b>5</b>	<b>FITTINGS &amp; FIXTURES:</b>							
<b>5.1</b>	Supply,Installation and testing of following types of LED Tube Fixtures Directly on Wall / Ceiling/ Structure of Building with all accessories such as Electronics Ballast, Lamps, Stove Enameled Box, Perplex Sheet Cover etc. complete assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge. Make- PHILIPS, ,LT,WIPRO,TRILUX, PAC HALONIX/Equivalent							
<b>(A)</b>	Supply of Surface mounted indoor type 20 WATT LED Inverter LED Batten with Opal Diffuser, IP20, Battery back-up & Functioning as per Product TDS complete assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge(Make-Halonix Cat No LED INVERTER BATTEN HLB-08-20-CW-INV/WIPRO/CROMPTON/LT/PHILIPS	Nos.	32		0.00	0.00	0.00	0.00
<b>(B)</b>	Supply of 18 watt Surface mounted indoor type Round LED Luminaire with LED GLARE FREE opal diffuser ,IP20 Lamp complete assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge	Nos.	19		0.00	0.00	0.00	0.00
<b>C)</b>	Supply of 10 WATT LED BOLLARD LIGHT complete 5700K assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge	NOS	4		0.00	0.00	0.00	0.00
<b>D)</b>	Supply 36 W LED PREMISES LIGHT 6500 CCT complete assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge	Nos.	6		0.00	0.00	0.00	0.00

<b>E)</b>	Supply of 10 W Inverter LED Bulb in B-22 cap and with Opal Diffuser, IP20, Battery back-up & Functioning as per Product TDS Luminaire with LED complete assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge(Make-Make-HALONIX Cat No 10W B22 CW IP/PHILIPS/WIPRO/CROMPTON	Nos.	8		0.00	0.00	0.00	0.00
<b>F)</b>	Supply delivery, installation, testing & commissioning of following types of recessed/Surface mounted 36 watt indoor type LED panel 2' x 2' square LED Luminaire with 120 Lm/w with high efficiency made 6500 cct IP40 LED chip life of 50,000 burning hours at L70 - Minimum tested for 10K hours for compliance of TM21 projection. Luminaire driver should be Isolated and multistage constant current APFC type. Driver should be BIS registered with Input voltage range of 90V to 265V ( nominal rated voltage – 240V) with minimum 2 KV surge protection, PF >0.90, THD <10%; IP 40; and as per the direction of E.I.C;. Make:WIPRO / LT / TRILUX/REGENT/HALONIX/OSRAM	Nos.	25		0.00	0.00	0.00	0.00
<b>5.2</b>	Installation, testing and commissioning of pre-wired, LED fitting / compact LED fitting of all types, complete with all accessories and tube/lamp etc. directly on ceiling/ wall, including connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Nos	92		0.00	0.00	0.00	0.00
<b>5.3</b>	Numbering of ceiling fan/ exhaust fan/ light fittings as required.	Nos.	138		0.00	0.00	0.00	0.00
<b>6</b>	Supply, delivery, installation and testing of following Sweeps of High Speed Energy Efficient A.C 1200 mm 48 " Sweep Ceiling Fan 210 CMM Air Delivery.. GOOD BYE Anti Dust Super striker Ceiling Fan complete with Fan Blades, Down Rod, Canopies & Capacitor etc. including supply of Sundry Materials, making connection from the suitable point outlet but excluding cost of Fan Regulator complete as required and as per the Direction of Engineer-In-Charge.(Make-USHA , Halonix ,Bajaj)	Nos.	36		0.00	0.00	0.00	0.00
<b>6.1</b>	Supply, delivery, installation & testing of following Sweep & Speed 230 mm EXHAUST FAN 1400 RPM. on Existing Sheet Metal Switch Board including loop connections and making good the damages caused complete as required and as per direction of Engineer-in-charge(Make-USHA , Halonix ,Bajaj )	Nos.	8		0.00	0.00	0.00	0.00
<b>7</b>	<b>EARTHING:</b>	0	0		0.00	0.00	0.00	0.00
<b>7.1</b>	Providing and fixing 25 mm x 5 mm Copper earth strip in 40 mm dia G.I. pipe surface or in recess as strip electrode for connections etc. as required.and making good the damages caused complete as required and as per direction of Engineer-in-charge	meter	30		0.00	0.00	0.00	0.00
<b>7.2</b>	Extra for using salt and charcoal for G.I or copper plate earth as required and making good the damages caused complete as required and as per direction of Engineer-in-charge	set	2		0.00	0.00	0.00	0.00
<b>7.3</b>	Providing and fixing 8 SWG COPPER wire on surface or in recess for loop earthing along with existing surface / recessed conduit / submain wiring / cable as required and making good the damages caused complete as required and as per direction of Engineer-in-charge	meter	50		0.00	0.00	0.00	0.00
<b>7.4</b>	Earthing with COPPER plate 600 mm x 600mm x 6 mm thick ISI marked including accessories and providing masonry with cover plate having locking arrangement and watering pipe etc (But wih out charcoal and salt) as required.and making good the damages caused complete as required and as per direction of Engineer-in-charge	set	2		0.00	0.00	0.00	0.00

8	Laying of one number of PVC insulated and PVC seathed / XLPE power cable of 1.1 KV grade of size exceeding 120 sq.mm but not exceeding 400 sq.mm direct in ground in the same trench in one , sand cushioning, protective covering and refilling the trench etc. as required.	Mtr	100		0.00	0.00	0.00	0.00
9	Supply, Laying and Testing of following Size XLPE insulated 1.1 Kv alluminium armoured cable making good the damages caused as required complete as per Direction of Engineer-In-Charge. (Make: polycab.KFT)							
a)	185 mm2 3 1/2 Core , Al Armoured , XLPE Cable	Mtrs.	50		0.00	0.00	0.00	0.00
b)	25 mm2 3 1/2 Core , Al Armoured , XLPE Cable	Mtrs.	25		0.00	0.00	0.00	0.00
10	Supply of all materials like cable lugs, gland etc as required & terminal of below mentioned cable complete as per required technical specifications & direction of FIC							
(a)	185 mm2 3 1/2 Core , Al Armoured , XLPE Cable	Nos	1		0.00	0.00	0.00	0.00
b)	25 mm2 3 1/2 Core , Al Armoured , XLPE Cable	Nos	2		0.00	0.00	0.00	0.00
11	Supplying of following Materials							
a)	First Aid Box.	Set.	1		0.00	0.00	0.00	0.00
b)	Shock Treatment Chart (Odia / Hindi & English).	Set	1		0.00	0.00	0.00	0.00
c)	8 mm thick Rubber Mat.	Sqmr.	12		0.00	0.00	0.00	0.00
d)	Danger Board.	Set	1		0.00	0.00	0.00	0.00
	<b>CONTROL ROOM BUILDING ELECTRICALS (B.7)</b>							<b>0.00</b>
<b>B.8</b>	<b>CONTROL ROOM BUILDING FIRE ALARM SYSTEM</b>							
1	Supply testing & commissioning of 6 Zone conventional solid state digital panel suitable for wall/floor mounted, microprocessor based incorporating visual indication for each zone fitted with 24 volts S.M battery with battery charger all complete as required as per direction of Engineer-in-charge.	Nos	1		0.00	0.00	0.00	0.00
2	Supply, installation, testing and commissioning of stylish low profile designed conventional Photo electric smoke detector Make-Siemens/ Honeywell /Bosch/GST/equivalent make as per direction of Engineer-in-charge.	Nos	15		0.00	0.00	0.00	0.00
3	Supply, installation, testing and commissioning of analogue soft addressing resettable PVC body Manual call point with integral short circuit isolator etc as reqd. Make-Siemens/ Honeywell /Bosch/GST/equivalent make as per direction of Engineer-in-charge.	Nos	2		0.00	0.00	0.00	0.00
4	Supply, installation, testing and commissioning of soft addressed wall mounting / ceiling mounting sensor based sounder low profile designed The sounder utilises high intensity LEDS to provided highly visible red coloured flash light with sound to alert (Up to 100 DB) occupancies for evacuation during fire etc as reqd. Make-Siemens/ Honeywell /Bosch/GST/equivalent make as per direction of Engineer-in-charge.	Nos	2		0.00	0.00	0.00	0.00
5	Supplying and drawing followings sizes of PVC insulated copper conductor 2 core 1.5 sqmm flexible cable in the existing surface / recessed steel conduit etc as reqd. Make-Polycab/Havells/equivalent make as per direction of Engineer-in-charge.	Mtr	150		0.00	0.00	0.00	0.00
	<b>Sub TOTAL-CONTROL ROOM BUILDING FIRE ALARM SYSTEM (B.8)</b>							<b>0.00</b>
	<b>TOTAL CONTROL ROOM BUILDING (B.1+B.2+B.3+B.4+B.5+B.6+B.7+b.8)</b>							<b>0.00</b>
<b>C.1</b>	<b>MAIN GATE, WICKET GATE &amp; SECURITY SHED</b>							

1	Earthwork excavation in all kinds of soil as per drawing and technical specification including dressing and levelling the bed, sides and bottom and removing the excavated earth and depositing the same away from the work site within initial lead of 50m and initial lift of 1.5m, including cost, conveyance of all materials, all labour, T&P articles required for the work, including shoring, shuttering, propping and dewatering if required etc. complete in all respect as per direction of the Engineer in Charge.	Cum	27.9		0.00	0.00	0.00	0.00
2	Cutting in disintegrated rock not requiring blasting to be removed by pick axes and crow bars and depositing materials within 50m initial lead and 1.5m initial lift including rough dressing as per direction and specification of the department including stacking the useful materials separately as ordered.	Cum	18.61		0.00	0.00	0.00	0.00
3	Back filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead upto 50 m and lift upto 1.5m.	Cum	9.3		0.00	0.00	0.00	0.00
4	Carriage / disposal of excavated surplus earth from the worksite by mechanical means within a lead of 5Km including loading and unloading etc. complete. in all respect as per direction of Engineer-in-Charge.	Cum	37.21		0.00	0.00	0.00	0.00
5	Supplying, filling in foundation and plinth with sand in 22.5 cm (9") thick layers including watering and ramming with cost, conveyance, royalties and taxes of sand with labour and T&P required for the work etc. complete (Measurement will be taken on finished compacted section only).	Cum	39.32		0.00	0.00	0.00	0.00
6	Providing and lying Plain Cement Concrete of proportion (1:3:6) in foundation and floors using 4cm (1 1/2") 0 mm & down grade black hard crusher broken granite stone metal, washed and screened sharp sand of approved quality from approved quarry including hoisting, lowering, laying the concrete, ramming, watering and curing etc. complete to required thickness including cost of all materials, conveyance, loading, unloading, cost of labours, T&P, hire & running charges of concrete mixer, etc. all complete as per the direction of the Engineer -in -charge.	Cum	6.56		0.00	0.00	0.00	0.00
7	Providing and laying in position ready mixed M-25 grade concrete having compressive strength at 28 days test not less than 250 kg/ sq.cm for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying , including the cost of centering, shuttering finishing and excluding reinforcement including cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, and hoisting, lowering, laying and compacting concrete, watering and curing and finishing the exposed surfaces smooth with cost, conveyance, royalties, of all materials with all labour, Labour cess and T&P required for the work improve workability without impairing strength and durability as per direction of the Engineer - in - charge.							
A	<b>GROUND FLOOR</b>							
a	Foundation & bases of column	cum	8.82		0.00	0.00	0.00	0.00
b	Plinth Beam	cum	3.63		0.00	0.00	0.00	0.00
c	Pedestal & Columns	cum	5.71		0.00	0.00	0.00	0.00
d	Roof Beam	cum	1.97		0.00	0.00	0.00	0.00

e	Lintel	cum	0.78		0.00	0.00	0.00	0.00
q	R.C.C. floor and roof slab	cum	2.23		0.00	0.00	0.00	0.00
<b>B</b>	<b>FIRST FLOOR</b>							
a	Columns	cum	4.20		0.00	0.00	0.00	0.00
b	Roof Beam	cum	11.94		0.00	0.00	0.00	0.00
e	R.C.C. floor and roof slabs	cum	5.46		0.00	0.00	0.00	0.00
<b>8</b>	Cutting, straightening coiled or bent up M.S. rods, HYSD steel or Tor Steel welding or jointing if necessary, bending, binding, tying the grills as required for RCC works, and hoisting, lowering and placing in proper position according to approved designs and drawings including cost, conveyance, loading, unloading, M.S. rods, HYSD steel or Tor steel and binding wires of 18 to 20 gauge required for the work and cost of all labour, sundries, T&P and scaffolding complete in all respect as directed by the Engineer-in-Charge (payment will be made according to the actual weight of M.S. rod, HYSD steel or Tor steel consumed in the work and no separate payment will be made towards weight of binding wires which is to be borne by the contractor at his own cost).							
<b>A</b>	<b>GROUND FLOOR</b>	Qntl	30.32		0.00	0.00	0.00	0.00
<b>B</b>	<b>FIRST FLOOR</b>	Qntl	33.55		0.00	0.00	0.00	0.00
<b>9</b>	Fly Ash brick masonry using fly ash bricks of size 25 cm. x 12 cm. x 8 cm. having crushing strength not less than 75 kg. Per Sqr. Cm. in cement mortar of mix (1:6) with ordinary portland cement (OPC) and screened & washed sand for mortar after immersing the bricks for 6 (Six) hours in water before use including splays cutting, circular moulding, corbelling, chamfering and similar such type of works, watering and curing etc. including cost, conveyance, loading, unloading, royalties of all materials, cost of all labour, scaffolding, sundries, T&P required for the works etc. complete in all respect as directed by the Engineer-in-charge							
<b>A</b>	Foundation & Plinth	Cum	8.22		0.00	0.00	0.00	0.00
<b>B</b>	<b>GROUND FLOOR</b>	Cum	9.81		0.00	0.00	0.00	0.00
<b>C</b>	<b>FIRST FLOOR</b>	Cum	3.19		0.00	0.00	0.00	0.00
<b>10</b>	Providing 16 mm. thick cement plaster (1:6) finished smooth to inside brick walls after racking out the joints including watering and curing with cost, conveyance, loading, unloading, royalties of all materials, cost of all labour, T&P, sundries and scaffolding required for the work etc. with providing grooves as directed by the Engineer in charge							
<b>A</b>	<b>GROUND FLOOR</b>	Sqm	61.49		0.00	0.00	0.00	0.00
<b>B</b>	<b>FIRST FLOOR</b>	Sqm	16.58		0.00	0.00	0.00	0.00
<b>11</b>	Providing 6mm thick cement plaster in cement mortar of (1:4) to RCC surfaces such as ceilings of roof slabs, stairs, landings, chajja, shelves, columns, beams and lofts etc. including roughening/chipping, scraping and cleaning and finishing the plastered surface smooth using wooden floats, bars, etc. only to proper plumbs and level, making grooves, beads and drip coarse to give required ornamental finish as per drawing including cost of all materials, conveyance, loading and unloading, royalties, cost of all labour, scaffolding, staging, watering before plastering and curing, sundries and T&P, etc. complete as per direction of the Engineer-in-charge.							
<b>A</b>	<b>GROUND FLOOR</b>	sqm	12.66		0.00	0.00	0.00	0.00
<b>B</b>	<b>FIRST FLOOR</b>	sqm	42.09		0.00	0.00	0.00	0.00

<b>12</b>	Providing 12 mm. thick cement plaster (1:6) finished smooth to inside brick walls after racking out the joints including watering and curing with cost, conveyance, loading, unloading, royalties of all materials, cost of all labour, T&P, sundries and scaffolding required for the work etc. with providing grooves as directed by the Engineer in charge							
A	GROUND FLOOR	sqm	53.42		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	47.42		0.00	0.00	0.00	0.00
<b>13</b>	<b>Providing vitrified tile flooring using Matt vitrified tiles having thickness of 8mm to 10mm conforming to IS 13756 of 600mm x 600mm / 600mm x 300mm Colour &amp; Printed Series (homogeneous) of approved quality of Somany / Kajaria / Asian / Johnson or equivalent in all floors at all height on 20mm thick bed of cement mortar of mix (1:4) laid in proper slope and gradient with screened and washed sharp sand for mortar and grouted with epoxy grout with required quantities of pigments of approved marks to match the shades of the vitrified tile if required watering and curing for 21 days, including cost, conveyance, loading, unloading, royalties and taxes of all materials, cost of all labour, sundries, T&amp;P required for the work, complete in all respect as per specification and direction of Engineer-in-charge.</b>							
<b>A</b>	GROUND FLOOR	sqm	7.56		0.00	0.00	0.00	0.00
<b>14</b>	Supplying , fitting and Fixing Matt finish full body vitrified tile in dado /skirting of 10MM thick, size 600mm x 600mm with water absorption less than 0.3 % of somany / Kajaria of approved make having base price of the tile Rs. 90 / sqft confirming to I.S.15622 laid on 12mm thick cement mortar (1:3) (1 cement : 3 coarse sand) and filling joints with white cement of approved quality including cost of all materials, labour, T&P etc. required for the work all complete as per direction of Architect. (At corridor & lobby area)							
<b>A</b>	GROUND FLOOR	sqm	1.65		0.00	0.00	0.00	0.00
<b>15</b>	Providing Granite stone prepolished 20mm thick of area above 0.40 Sqm in flooring of approved quality, colour and size in floors, treads on steps and landings in all floors at all height on 20mm thick bed of cement mortar of mix (1:4) laid in proper slope and gradient with screened and washed sharp sand for mortar and grouted with neat white cement slurry jointing the tile with neat white cement slurry mixed with required quantities of pigments of approved marks to match the shades of the granite tile if required watering and curing for 21 days, including cost, conveyance, loading, unloading, royalties of all materials, cost of all labour, T&P required for the work etc. complete in all respect as per specification and direction of Engineer-in-charge.							
<b>A</b>	GROUND FLOOR	sqm	0.68		0.00	0.00	0.00	0.00
<b>16</b>	Providing edge moulding to 18 mm thick granite stone counters, Vanities, steps etc., including machine polishing to edge to give high gloss finish including making three nos of groove over tread etc. complete including cost, conveyance, loading and unloading and ,es of all materials, cost of all labour, sundries, T&P, scaffolding etc. required for the work and complete in all respect as directed by the Engineer in charge.							
<b>A</b>	GROUND FLOOR	rn	5.40		0.00	0.00	0.00	0.00

17	Providing and fixing in position wood plastic composite door frame with appropriate length of ETA Approved carbon steel galvanized (minimum 5 microns) double threaded 6.8 grade Polyamide PA 6 grade sleeve HRD C 10 anchor suitable for fastenings both on concrete & masonry/aerated blocks including cost of all materials, labours, T & P etc required for the work. complete in all respect as directed by the Architect/Engineer-in-charge							
A	GROUND FLOOR	rnm	5.85		0.00	0.00	0.00	0.00
26	Providing and fixing of 35mm thick WPC Door Shutter(Solid) with teak edge leaping to the periphery of the shutter with pilishing as per detailed drawing with including, all hardwares & fixtures, SS tower bolt(150mm),Door stopper,SS aldrop(250mm),SS handle(200mm length),ss handle (150mm length) & SS Butt hinges -125mm x 65mm x2.12mm .including cost, conveyance, loading, T&P required for the work etc. complete in all respect as directed by the Engineer-in-charge							
A	GROUND FLOOR	sqm	2.52		0.00	0.00	0.00	0.00
18	Supplying, fitting and fixing of M.S grills, Grill window ( as per I.S. specification and as per approved drawings ) in proper position in all floors and at all height including making holes to brick walls/ R.C.C structure/wood work etc. and making good to the damaged walls/ structures with cement concrete (1:2:4) with black hard crusher broken granite stone chips of 12mm to 20mm size ( 20mm size not to exceeds 25% ) including watering and curing etc. complete in all respect as directed by the Engineer in charge ( W.I. / M.S. windows grills, grill gates, collapsible gates with top and bottom rails, steel windows, steel doors, steel frames for doors and windows, staircase and parapet railings square bar along with required nos. of nails and screws and other required materials of approved quality and approved size shall be supplied by the contractor at his own cost.)							
A	GROUND FLOOR	KG	2197.65		0.00	0.00	0.00	0.00
19	Finishing wall surface of walls with wall putty (water based) of approved make and finished smooth and even surface to receive painting including cost of scaffolding staging charges with cost of all materials, labour T&P etc. complete the work as per the direction of engineer incharge							
A	GROUND FLOOR	sqm	74.15		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	106.09		0.00	0.00	0.00	0.00
20	Providing Wall painting with cement primer(oil bound )one coat to the internal wall surface including cost of all materials, labour, Tools & Plant, Brushes etc. complete in all respects as per the direction of engineer incharge.							
A	GROUND FLOOR	sqm	74.15		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	106.09		0.00	0.00	0.00	0.00
21	Providing Wall painting with Oil bound distemper paint two and more coats to all New work to get an even shade including cost of all materials, labour, Tools & Plant, Brushes etc. complete in all respects as per the direction of engineer incharge (interior)							
A	GROUND FLOOR	sqm	74.15		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	106.09		0.00	0.00	0.00	0.00
22	Painting to external surface of building with two coats of weather seal coat of approved shade and quality of approved design after cleaning by watering & removing the dirts etc. to the surface to be painted including watering, curing, cost, conveyance of all materials, cost of all labour, brushes, T&P etc. and necessary scaffolding work complete as directed by the Engineer-in-charge.							

A	GROUND FLOOR	sqm	53.42		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	47.42		0.00	0.00	0.00	0.00
23	Providing Wall painting with cement primer(water bound) one coat to the external wall surface including cost of all materials, labour, Tools & Plant, Brushes etc. complete in all respects.							
A	GROUND FLOOR	sqm	53.42		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	47.42		0.00	0.00	0.00	0.00
24	Providing and painting two coats with synthetic enamel paint of approved quality and approved shade confirming to ISI on steel work to give an even shade in all floors at all height over a coat of primer of approved quality and shade including sand papering and making the surface smooth with cost, conveyance, loading and unloading, of all materials, cost of all labour, sundries, T&P, scaffolding etc. required for the work and complete in all respect as directed by Engineer-in-charge.							
A	GROUND FLOOR	sqm	24.89		0.00	0.00	0.00	0.00
25	Providing approved primer of one coat to the Iron work including cost of all materials, labour, Tools & Plant, Brushes etc. complete in all respects as directed by Engineer-In-Charge.							
A	GROUND FLOOR	sqm	24.89		0.00	0.00	0.00	0.00
26	Providing 2.5 cm thick grading concrete(1:2:2) on roof slab using 6mm size hard granite chips including hoisting, lowering, laying, concrete with watering, curing in all floors with cost, conveyances, royalty of all materials, all labour, labour cess, T&P etc. complete as per direction of the Engineer in charge							
A	FIRST FLOOR	Sqm	43.71		0.00	0.00	0.00	0.00
27	Providing & applying of pre constructional anti-termite treatment by drilling 12mm dia holes at distance of 30cm @ junction of wall & floor about 300mm apart deep enough to reach the soil below & chemical emulsion (PREMISE, IMIDACHLOPRIED 30.5SC OF BAYER MAKE mixed with 47.5ltr water) pumped these holes to soak the soil @ 1 ltr solution of each hole as per manufactures specification & the holes should be plugged the filling materials including cost of all materials, labour,conveyance, T&P , all taxes and hire charges of machinaries as per direction of Engineer-in-charge.	Sqm	22.68		0.00	0.00	0.00	0.00
28	Providing and fixing of UPVC sliding windows 2 track sliding-60 series/Top hung ventilator of any approved make ,duly manufactured using upvc reinforced profiles of 62mm x 60mm x 2.25mm for outer frame, 66mm x 38mm x 2.25mm for sliding shutter frames capable of mounting single glazing system,structurally reinforced with hot dip galvanised upto 50 microns of minimum thickness of 1.2 mm prefabricated and welded through fusion welding & the window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal including the cost of all materials,necessary locking arrangements ,fittings,cost of labour,T&P ,etc complete as per direction of Engineer-in-charge.							
A	GROUND FLOOR	sqm	3.65		0.00	0.00	0.00	0.00

29	Waterproofing to the roof slab (a) Surface preparation : Cleaning the surface thoroughly by chipping the roof slabs using breakers, wire brush, mechanical grinder for making it free from all loose particles, dust etc. then total cleaning through air blower followed by water jetting and allowing the surface to dry. (b) Application : Supply and application of Nano Technology OrganoSilane based Zycosil + @ 1:20 (one part Zycosil + and 20 parts of clean water) to the saturation level on the entire flat surface and upto 300mm (1ft.) to the parapet walls and then allowing for drying 24 hrs., test the surface for hydrophobicity. Then application of 100% acrylic co-polymer Zycoprime+, cement and fine sand (100 mesh) mixed at a consistency of paste form and filling drainage pipes gaps. Then application of one coat of Zycoat mix of Zycoprime + and grey cement @ 1:1.5 ratio ( 1 part Zycoprime + and 1.5 part cement). 2ndcpat of Zycoat mix to be applied after the drying of first coat in the same procedure followed by sprinkling of sieved sand on the top of the slurry. Then allow it to dry followed by proper curing with water for at least two days. (c) Coving : Coving has to be done with Zycomix (a mortar prepared with Zycoprime+, cement and sand in the ratio of 1:5:15 and water as per workability to obtain a uniform paste). Finally cure with water to the entire treated roof and parapet wall for three days.							
<b>a</b>	<b>FIRST FLOOR</b>	SQM	43.71		0.00	0.00	0.00	0.00
	<b>TOTAL CIVIL MAIN GATE, SECURITY SHED (C.1)</b>							<b>0.00</b>
<b>PART-C.2</b>	<b>ELECTRICAL FOR MAIN GATE, SECURITY SHED</b>							
1.1(a)	GROUP A :Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required. ((Make :Legrand(Myrius)/MK(elements)/Panasonic(Europa)/Hager(Insysta)/Eq make	Nos.	2		0.00	0.00	0.00	0.00
B	GROUP B: Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required. ((Make :Legrand(Myrius)/MK(elements)/Panasonic(Europa)/Hager(Insysta)/Eq make	Nos.	2		0.00	0.00	0.00	0.00
C	GROUP C: Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required. ((Make :Legrand(Myrius)/MK(elements)/Panasonic(Europa)/Hager(Insysta)/Eq make	Nos.	4		0.00	0.00	0.00	0.00

(b)	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required. ((Make :Legrand(Myrius)/MK(elements)/Panasonic(Europa)/Hager(Insysta)/Eq make	Nos.	5		0.00	0.00	0.00	0.00
(c)	Recessed wiring for 5 / 6 amp socket outlet with 2 x 1.5 sq.mm FR PVC insulated single core multistrand copper conductor of ISI marked in recess 20 mm dia non-metallic PVC flexible conduit with modular type switch ,4 module 18SWG modular GI box and earthing point with 1 x 1.5 sq.mm FR PVC insulated single core multistrand copper conductor for loop earthing etc. as required. ( Make of wire Finolex / Anchor / Havels / V Guard/KEI )	Nos.	2		0.00	0.00	0.00	0.00
(D)	Supplying and fixing of 4module GI box with cover on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 5 pin 15 / 16 amps socket outlet and 15 / 16 amps modular type switch, connection, painting etc as required.(Make-Anchor/crabtree/Legrand)	Nos.	2		0.00	0.00	0.00	0.00
1.2	Recessed wiring for 5 / 6 amp socket outlet with 2 x 1.5 sq.mm FR PVC insulated single core multistrand copper conductor of ISI marked in recess 20 mm dia non-metallic PVC flexible conduit with modular type switch ,6 module 18SWG modular GI box and earthing point with 1 x 1.5 sq.mm FR PVC insulated single core multistrand copper conductor for loop earthing etc. as required. ( Make of wire Finolex / Anchor / Havels /KEI )	Nos.	2		0.00	0.00	0.00	0.00
1.3	Supply and fixing of 20 amp 240 V SPN industrial type socket outlet with 2 pole and earth metal encloser plug top along with 20 amp "C" series SP MCB in sheet steel enclosure on surface or in recess with chained metal cover for the socket outlet and complete connections, testing and commissionig etc. as required.(Make-Legrand (Mylink)/Siemens/Hager)	NO	1		0.00	0.00	0.00	0.00
1.4	Supplying and fixing of 100W,step type regulator, 2 Module without base and cover including connection etc as required.(Make :Legrand(Myrius)/MK(elements)/schneider(Zencelo)	Nos.	1		0.00	0.00	0.00	0.00
1.5	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Nos.	2		0.00	0.00	0.00	0.00
1.6	Wiring to Telephone Socket Outlet from Junction Box with 0.5 mm2 Twin Pair Copper Conductor Telephone Wire run inside prelaid PVC Conduit complete including termination, testing etc complete as required and as per Direction of Engineer-In-Charge. (Make :Legrand(Myrius)/MK(elements)/schneider(Zencelo)	Mtrs.	60		0.00	0.00	0.00	0.00
1.7	Supply, delivery, installation and testing of TV Antenna Wires RG6 in PVC Pipe and making good the damages caused complete as required and as per Direction of Engineer-In-Charge. (Make :Legrand(Myrius)/MK(elements)/schneider(Zencelo)	Mtrs.	50		0.00	0.00	0.00	0.00
1.8	Supplying and fixing of RJ11 telephone jack single with shutter & RJ 45 computer jack with shutter, 2module modular base and cover including connection for telephone and LAN . (Make :Legrand(Myrius)/MK(elements)/schneider(Zencelo)	NO	1		0.00	0.00	0.00	0.00
1.9	Supplying and fixing T.V. antenna socket outlet piano type ISI marked on the existing switchboard / cover including connections etc as requird.	NO	1		0.00	0.00	0.00	0.00

19.1	Supply, delivery and laying of following sizes of 2 mm Wall thickness rigid PVC Conduit Concealed in Wall/ Column/ Roof Slab of the Building or mounted on surface along with other accessories and 18 SWG GI Fish Wire complete for Telephone / TV / Computer / Circuit or Sub main wiring as required & as per Direction of Engineer-In-Charge							
(a)	20 mm dia.	Mtrs.	50		0.00	0.00	0.00	0.00
(b)	25 mm dia.	Mtrs.	60		0.00	0.00	0.00	0.00
2	Wiring for Circuits and Submain with following number & sizes of PVC insulated 1100 Volt Grade Multistranded Copper Conductor FRLS Wire run inside 2 mm thick PVC Conduit Pipe Recessed in Ceiling / Column / Walls of Building including supply of all materials such as wires, PVC Conduit, Junction Box & Pull Box etc. complete with making good the damages caused as required and as per Direction of Engineer-In-Charge. (Make of wire Finolex/Anchor/Havels/KEI)							
(a)	2 Nos. Single Core 1.5 mm <sup>2</sup> FRLS Copper Wire for Phase and Neutral and 1 No. Single Core 1.5 mm <sup>2</sup> FRLS Copper Wire for Earth Continuity Conductor as per SLD (Make of wire Anchor/Havels/KEI)	Mtrs.	40		0.00	0.00	0.00	0.00
(b)	2 Nos. Single Core 2.5 mm <sup>2</sup> FRLS Copper Wire for Phase and Neutral and 1 No. Single Core 1.5 mm <sup>2</sup> FRLS Copper Wire for Earth Continuity Conductor as per SLD (from LDB to Room & Power Point and Common Light Point looped).(Make of wire Anchor/Havels/KEI)	Mtrs.	30		0.00	0.00	0.00	0.00
(c)	2 Nos. Single Core 4.0 mm <sup>2</sup> FRLS Copper Wire for Phase and Neutral and 1 No. Single Core 2.5 mm <sup>2</sup> FRLS Copper Wire for Earth Continuity Conductor as per SLD.(Make of wire Anchor/Havels/KEI)	Mtrs.	25		0.00	0.00	0.00	0.00
(e)	4 Nos. Single Core 16.0 mm <sup>2</sup> FRLS Copper Wire for Phase and Neutral and 2 No. Single Core 10 mm <sup>2</sup> FRLS Copper Wire for Earth Continuity Conductor as per SLD.(Make of wire Anchor/Havels/KEI)	Mtrs.	10		0.00	0.00	0.00	0.00
<b>3</b>	<b>BRANCH DISTRIBUTION BOARDS:</b>							
<b>3.1</b>	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator). 12 way, Double door Make:LEGRAND(DX3)/SIEMENS(Betagaurd)/Schneider(Acti 9)/GE	Nos.	1		0.00	0.00	0.00	0.00
<b>3.2</b>	Supplying and fixing following way, Three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) 4 way, TPN DB Double door Make:LEGRAND(DX3)/SIEMENS(Betagaurd)/Schneider(Acti 9)/GE	Nos.	1		0.00	0.00	0.00	0.00
<b>3.3</b>	Supplying and fixing following rating, 63 amp 4pole MCB , (Three phase and neutral), 415 V having a sensitivity current 10 KA in the existing MCB DB complete with connections, testing and commissioning etc. as required.	Nos.	1		0.00	0.00	0.00	0.00
<b>3.4</b>	Supplying and fixing Single pole 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required	Nos.	12		0.00	0.00	0.00	0.00
<b>3.5</b>	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	Nos.	2		0.00	0.00	0.00	0.00
<b>6</b>	<b>FITTINGS &amp; FIXTURES:</b>							

6.1	Supply,Installation and testing of following types of LED Tube Fixtures Directly on Wall / Ceiling/ Structure of Building with all accessories such as Electronics Ballast, Lamps, Stove Enameled Box, Perplex Sheet Cover etc. complete assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge. Make- PHILIPS,WIPRO,LT,TRILUX,OSRAM,HALONIX							
(A)	Supply of Surface mounted indoor type 20 WATT LED Inverter LED Batten with Opal Diffuser, IP20, Battery back-up & Functioning as per Product TDS complete assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge(Make-Halonix Cat No LED INVERTER BATTEN HLB-08-20-CW-INV/WIPRO/CROMPTON/LT/PHILIPS	Nos.	2		0.00	0.00	0.00	0.00
(B)	Supply of 200 watt LED LED Bay Light of die cast aluminium housing with Lens embeded PC Cover, IP66 and efficacy of 120lm/W.with Aluminium die cast housing Luminaire with toughhned glass and unique lens system opal diffuser ,IP66 die cast aluminium housing with LED bay LIGHT 10KV SPD , complete assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge.Make-HALONIX:HLBLD-ML54-200-CWDL-R01-HL2 / PHILIPS/WIPRO,LT,BAJAJ,TRILUX, OSHRAM,	Nos.	4		0.00	0.00	0.00	0.00
C)	Supply of 400 watt LED FLOOD Light of die cast aluminium housing with Lens embeded PC Cover, IP66 and efficacy of 120lm/W.with Aluminium die cast housing Luminaire with toughhned glass and unique lens system opal diffuser ,IP66 die cast aluminium housing with LED bay LIGHT 10KV SPD , complete assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge.Make-HALONIX:HLFLD-ML27-400-CW-R01 / PHILIPS/WIPRO,LT,BAJAJ,TRILUX, OSHRAM,	Nos.	6		0.00	0.00	0.00	0.00
D)	Supply of 10 W Inverter LED Bulb in B-22 cap and with Opal Diffuser, IP20, Battery back-up & Functioning as per Product TDS Luminaire with LED complete assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge(Make-Make-HALONIX Cat No 10W B22 CW IP/PHILIPS/WIPRO/CROMPTON	Nos.	1		0.00	0.00	0.00	0.00
E)	Supply of 6 W LED Bulb in B-22 cap and with Opal Diffuser, Functioning as per Product TDS Luminaire with LED complete assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge	Nos.	1		0.00	0.00	0.00	0.00
6.2	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting of all types, complete with all accessories and tube/lamp etc. directly on ceiling/ wall, including connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Nos	4		0.00	0.00	0.00	0.00
6.3	Numbering of ceiling fan/ exhaust fan/ light fittings as required.	Nos.	6		0.00	0.00	0.00	0.00
7	Supply, delivery, installation and testing of following Sweeps of High Speed Energy Efficient A.C 1200 mm 48 " Sweep Ceiling Fan 210 CMM Air Delivery.. GOOD BYE Anti Dust Super striker Ceiling Fan complete with Fan Blades, Down Rod, Canopies & Capacitor etc. including supply of Sundry Materials, making connection from the suitable point outlet but excluding cost of Fan Regulator complete as required and as per the Direction of Engineer-In-Charge.(Make-USHIA, Halonix, Dancenic, Bajaj)	Nos.	1		0.00	0.00	0.00	0.00
<b>8</b>	<b>EARTHING:</b>							

8.1	Providing and fixing 25 mm x 5 mm Copper earth strip in 40 mm dia G.I. pipe surface or in recess as strip electrode for connections etc. as required.and making good the damages caused complete as required and as per direction of Engineer-in-charge	meter	10		0.00	0.00	0.00	0.00
8.2	Extra for using salt and charcoal for G.I or copper plate earth as required and making good the damages caused complete as required and as per direction of Engineer-in-charge	set	1		0.00	0.00	0.00	0.00
8.3	Providing and fixing 8 SWG COPPER wire on surface or in recess for loop earthing along with existing surface / recessed conduit / submain wiring / cable as required and making good the damages caused complete as required and as per direction of Engineer-in-charge	meter	10		0.00	0.00	0.00	0.00
8.4	Earthing with COPPER plate 600 mm x 600mm x 6 mm thick ISI marked including accessories and providing masonry with cover plate having locking arrangement and watering pipe etc (But wih out charcoal and salt) as required.and making good the damages caused complete as required and as per direction of Engineer-in-charge	set	1		0.00	0.00	0.00	0.00
<b>CABLE</b>								
9	Laying of one number of PVC insulated and PVC seathed / XLPE power cable of 1.1 KV grade of size excedding 25 sq.mm but not exceeding 100 sq.mm direct in ground in the same trench in one , sand cushioning, protective covering and refilling the trench etc as required	Mtr	50		0.00	0.00	0.00	0.00
10	Supply, Laying and Testing of following Size XLPE insulated 1.1 Kv alluminium armoued cable making good the damages caused as required complete as per Direction of Engineer-In-Charge. (Make: polycab.KFI)							
a)	4 mm <sup>2</sup> 3 Core Flexiable cooper Cable (flood light)	Mtrs.	100		0.00	0.00	0.00	0.00
11	Supply of all materials like cable lugs, gland etc as required & terminal of below mentioned cable complete as per required technical specifications & direction of EIC							
(a)	50 mm <sup>2</sup> 3 1/2 Core , Al Armoured , XLPE Cable	Nos	1		0.00	0.00	0.00	0.00
12	<b>Supplying of following Materials</b>				0.00	0.00	0.00	0.00
a)	First Aid Box.	Set.	1		0.00	0.00	0.00	0.00
b)	Shock Treatment Chart (Odia / Hindi & English).	Set	1		0.00	0.00	0.00	0.00
c)	8 mm thick Rubber Mat.	Sqmtr.	6		0.00	0.00	0.00	0.00
e)	Danger Board.	Set	1		0.00	0.00	0.00	0.00
<b>TOTAL ELECTRICALS FOR MAI GATE, SECURITY SHED (C.2)</b>								<b>0.00</b>
<b>TOTAL MAIN GATE, SECURITY SHED (C.1+C.2)</b>								<b>0.00</b>
<b>PART-D BOUNDARY WALL(1200M)</b>								
1	Earth work in excavation in all kinds of soil (Ordinary, hard soil & stoney earth soil ) for foundation trenches within 50m. Initial lead and 1.5m initial lift including rough dressing and beaking clods to maximum 5 cm to 7 cm and laying in layers not exceeding 0.3 m in depth and as per specification approved by the department	Cum	787.32		0.00	0.00	0.00	0.00
2	Filling foundation trenches and plinth with excavated earth including laying the earth in layers not exceeding 23.5cm (9") thick ramming and watering with all leads and lifts including cost of all labour, T&P etc. complete as directed by the Engineer-in-charge	Cum	262.44		0.00	0.00	0.00	0.00
3	Disposal of excess earth by mechanical means / manually including cost of loading, unloading, transporting & spreading to a level surface complete in all respects including cost of all labour, tools & plant etc. to complete the work							
a.	Upto 5 KM	Cum	524.88		0.00	0.00	0.00	0.00

4	Supplying, filling in foundation and plinth with sand including watering and ramming with cost, conveyance, royalties of sand with labour and T&P required for the work etc. complete (Measurement will be taken on finished compacted section only).							
a.	Ground floor	Cum	87.48		0.00	0.00	0.00	0.00
5	Providing & laying Plain Cement concrete (PCC) of proportion (1:3:6) in foundation and floors using 4cm (1½") size clean hard black crusher broken granite stone metal of approved quality and from approved quarry including hoisting, lowering and laying concrete in layers not exceeding 15 cm. (6") thick to the required level ramming, watering, curing etc. complete including cost, conveyance, royalties and ,es of all materials with all labour, cess and T&P required for the work etc. complete in all respect.	Cum	87.48		0.00	0.00	0.00	0.00
6	R.C.C. work of Grade- M 25 in following works using 20mm size & down graded hard black crusher broken granite stone chips of approved quality from approved quarry in specified proportion including centering & shuttering, hoisting, lowering, laying and compacting concrete, watering and curing and finishing the exposed surfaces smooth with cost, conveyance, royalties of all materials with all labour and T&P required for the work etc. complete in all respect as per the direction of engineer incharge but excluding the cost and conveyance of HYSD rods or Tor steel and binding wire of 18 to 20 gauge and labour charges for straightening, cutting, bending, binding and tying the grills and placing in proper position.							
A	Ground floor							
a.	Foundation & bases of column	Cum	145.8		0.00	0.00	0.00	0.00
b.	Plinth Beam	Cum	105		0.00	0.00	0.00	0.00
c.	Pedestal & Columns	Cum	131.16		0.00	0.00	0.00	0.00
d.	rcc band	Cum	52.56		0.00	0.00	0.00	0.00
7	Reinforcement for RCC work including straightening, cutting, bending, placing in position HYSD and binding all complete. lifting and placing in position as per design complete including cost of bars , binding wires , including cost of all materials, labour, conveyance, loading and unloading,, royalties, sundries, tools and plants, etc. complete as per the direction of the Engineer-in-charge. (linear measurement will be taken and quantity will be calculated on standard weight for all heights)-Thermo Mechanically Treated bars							
a.	Ground floor	Cum	593.52		0.00	0.00	0.00	0.00
8	Providing Brick work with Fly ash bricks 25cm x 12cm x 8cm size having crushing strength not less than 75 kg/cm2 with dimensional tolerance +/- 2 percent in cement mortar (1:6) ( 1 cement: 6 sand), with all necessary projection, splay cutting, circular moulding, corbelling, etc., including cost of all materials, labour, conveyance, loading ,and unloading, royalties, scaffolding, watering, curing, sundries, tools and plants, etc., as per the direction of the Engineer-in-charge							
a.	Ground floor	Cum	217.92		0.00	0.00	0.00	0.00
9	Providing 16 mm. thick cement plaster in all floors at all height with cement mortar of mix (1:6) with portland slag cement (PSC) finished smooth to inside rough surface of brick masonry walls after racking out joints including watering and curing rounding of corners etc. complete with cost, conveyance, loading and unloading, royalties and ,es of all materials and cost of all labour, T&P, sundries and scaffolding required for the work etc. with providing grooves as directed by the Engineer in charge. (Inside)							

a.	Ground floor	Cum	3479.4		0.00	0.00	0.00	0.00
10	Painting to external building surface with weather coat two coats over a coat of primer of approved shade and quality of approved design after cleaning by watering & removing the dirt etc. to the surface to be painted including watering, curing, cost, conveyance of all materials, cost of all labour, brushes, T&P etc. and necessary scaffolding work complete as directed by the Engineer-in-charge.							
a.	Ground floor	Cum	3479.4		0.00	0.00	0.00	0.00
11	Supplying, fitting and fixing of M.S grills, grill gates with top and bottom rails, steel windows, steel doors, steel frames for doors and windows, staircase and parapet railing ( as per I.S. specification and as per approved drawings ) in proper position in all floors and at all height including making holes to brick walls/ R.C.C structure/wood work etc. and making good to the damaged walls/ structures with cement concrete (1:2:4) with black hard crusher broken granite stone chips of 12mm to 20mm size ( 20mm size not to exceeds 25% ) including watering and curing etc. complete in all respect as directed by the Engineer in charge ( W.I. / M.S. windows grills, grill gates, collapsible gates with top and bottom rails, steel windows, steel doors, steel frames for doors and windows, staircase and parapet railings square bar along with required nos. of nails and screws and other required materials of approved quality and approved size shall be supplied by the contractor at his own cost.)							
A	GROUND FLOOR	Cum	45834.6		0.00	0.00	0.00	0.00
12	Providing and painting two coats with synthetic enamel paint over a coat of primer to iron work of approved quality and approved shade conforming to ISI on steel work to give an even shade in all floors at all height over a coat of primer of approved quality and shade including sand papering and making the surface smooth with cost, conveyance, loading and unloading, of all materials, cost of all labour, sundries, T&P, scaffolding etc. required for the work and complete in all respect as directed by Engineer-in-charge.							
A	GROUND FLOOR	Cum	65.52		0.00	0.00	0.00	0.00
	<b>TOTAL BOUNDARY WALL(1200M) (D)</b>							<b>0.00</b>
<b>PART-E</b>	<b>TRANSIT HOUSE</b>							
<b>E.1</b>	<b>TRANSIT HOUSE CIVIL WORK (E.1)</b>							
1	Earthwork excavation in all kinds of soil as per drawing and technical specification including dressing and levelling the bed, sides and bottom and removing the excavated earth and depositing the same away from the work site within initial lead of 50m and initial lift of 1.5m, including cost, conveyance of all materials, all labour, T&P articles required for the work, including shoring, shuttering, propping and dewatering if required etc. complete in all respect as per direction of the Engineer in Charge.	Cum	209.65		0.00	0.00	0.00	0.00
2	Extra lift or 1.5m or part there of over the initial lift of 1.5m in all kinds of embankments and road works and ordinary earth work in general.	Cum	74.23		0.00	0.00	0.00	0.00
3	Cutting in disintegrated rock not requiring blasting to be removed by pick axes and crow bars and depositing materials within 50m initial lead and 1.5m initial lift including rough dressing as per direction and specification of the department including stacking the useful materials separately as ordered.	Cum	139.77		0.00	0.00	0.00	0.00
4	Back filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead upto 50 m and lift upto 1.5m.	Cum	69.89		0.00	0.00	0.00	0.00

4	Carriage / disposal of excavated surplus earth from the worksite by mechanical means within a lead of 5Km including loading and unloading etc. complete. in all respect as per direction of Engineer-in-Charge.	Cum	279.53		0.00	0.00	0.00	0.00
5	Supplying, filling in foundation and plinth with sand in 22.5 cm (9") thick layers including watering and ramming with cost, conveyance, royalties and taxes of sand with labour and T&P required for the work etc. complete (Measurement will be taken on finished compacted section only).	Cum	345.30		0.00	0.00	0.00	0.00
6	Providing and lying Plain Cement Concrete of proportion (1:3:6) in foundation and floors using 4cm (1 1/2") 0 mm & down grade black hard crusher broken granite stone metal, washed and screened sharp sand of approved quality from approved quarry including hoisting, lowering, laying the concrete, ramming, watering and curing etc. complete to required thickness including cost of all materials, conveyance, loading, unloading, cost of labours, T&P, hire & running charges of concrete mixer, etc. all complete as per the direction of the Engineer -in -charge.	Cum	56.37		0.00	0.00	0.00	0.00
7	Providing & laying Plain cement concrete (1:2:4) using 12mm size black hard crusher broken granite chips of approved quality from approved quarry including hoisting, lowering and laying concrete in layers, watering, curing etc. complete including cost, conveyance, royalties and taxes of all materials with labour, cess and T&P etc. required for the work complete.							
	FIRST FLOOR	SQM	1.57		0.00	0.00	0.00	0.00
8	Providing and laying in position ready mixed M-25 grade concrete having compressive strength at 28 days test not less than 250 kg/ sq.cm for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying , including the cost of centering, shuttering finishing and excluding reinforcement including cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, and hoisting, lowering, laying and compacting concrete, watering and curing and finishing the exposed surfaces smooth with cost, conveyance, royalties, of all materials with all labour, Labour cess and T&P required for the work improve workability without impairing strength and durability as per direcinkling of sieved sand on the top o							
A	GROUND FLOOR							
a	Foundation & bases of column	cum	72.14		0.00	0.00	0.00	0.00
b	Plinth Beam	cum	13.07		0.00	0.00	0.00	0.00
c	Pedestal & Columns	cum	19.95		0.00	0.00	0.00	0.00
d	Roof Beam	cum	13.60		0.00	0.00	0.00	0.00
e	Lintel	cum	2.28		0.00	0.00	0.00	0.00
f	Chajja	sqm	15.45		0.00	0.00	0.00	0.00
g	R.C.C. floor and roof slab	cum	20.83		0.00	0.00	0.00	0.00
h	R.C.C. staircase	cum	3.43		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM							
a	Columns	cum	6.77		0.00	0.00	0.00	0.00
b	Roof Beam	cum	12.91		0.00	0.00	0.00	0.00
c	Lintel	cum	2.63		0.00	0.00	0.00	0.00
d	Chajja	sqm	3.44		0.00	0.00	0.00	0.00

e	R.C.C. floor and roof slabs	cum	23.14		0.00	0.00	0.00	0.00
f	R.C.C. staircase	cum	3.43		0.00	0.00	0.00	0.00
9	Cutting, straightening coiled or bent up M.S. rods, HYSD steel or Tor Steel welding or jointing if necessary, bending, binding, tying the grills as required for RCC works, and hoisting, lowering and placing in proper position according to approved designs and drawings including cost, conveyance, loading, unloading, M.S. rods, HYSD steel or Tor steel and binding wires of 18 to 20 gauge required for the work and cost of all labour, sundries, T&P and scaffolding complete in all respect as directed by the Engineer-in-Charge (payment will be made according to the actual weight of M.S. rod, HYSD steel or Tor steel consumed in the work and no separate payment will be made towards weight of binding wires which is to be borne by the contractor at his own cost).							
A	GROUND FLOOR	Qntl	187.46		0.00	0.00	0.00	0.00
B	FIRST FLOOR	Qntl	64.99		0.00	0.00	0.00	0.00
10	Fly Ash brick masonry using fly ash bricks of size 25 cm. x 12 cm. x 8 cm. having crushing strength not less than 75 kg. Per Sqr. Cm. in cement mortar of mix (1:6) with ordinary portland cement (OPC) and screened & washed sand for mortar after immersing the bricks for 6 (Six) hours in water before use including splays cutting, circular moulding, corbelling, chamfering and similar such type of works, watering and curing etc. including cost, conveyance, loading, unloading, royalties of all materials, cost of all labour, scaffolding, sundries, T&P required for the works etc. complete in all respect as directed by the Engineer-in-charge							
A	Foundation & Plinth	Cum	28.43		0.00	0.00	0.00	0.00
B	GROUND FLOOR	Cum	57.24		0.00	0.00	0.00	0.00
C	FIRST FLOOR & HEAD ROOM	Cum	61.31		0.00	0.00	0.00	0.00
11	Fly Ash brick masonry using fly ash bricks of size 25 cm. x 12 cm. x 8 cm. having crushing strength not less than 75 kg. Per Sqr. Cm. in cement mortar of mix (1:4) with ordinary portland cement (OPC) and screened & washed sand for mortar after immersing the bricks for 6 (Six) hours in water before use in Superstructure including splays cutting, circular moulding, corbelling, chamfering and similar such type of works, watering and curing etc. including cost, conveyance, loading, unloading, royalties of all materials, cost of all labour, scaffolding, sundries, T&P required for the works etc. complete in all respect as directed by the Engineer-in-charge							
A	GROUND FLOOR	cum	2.67		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	cum	2.25		0.00	0.00	0.00	0.00
12	Providing 16 mm. thick cement plaster (1:6) finished smooth to inside brick walls after racking out the joints including watering and curing with cost, conveyance, loading, unloading, royalties of all materials, cost of all labour, T&P, sundries and scaffolding required for the work etc. with providing grooves as directed by the Engineer in charge							
A	GROUND FLOOR	Sqm	402.87		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	Sqm	454.42		0.00	0.00	0.00	0.00

13	Providing 6mm thick cement plaster in cement mortar of (1:4) to RCC surfaces such as ceilings of roof slabs, stairs, landings, chajja, shelves, columns, beams and lofts etc. including roughening/chipping, scraping and cleaning and finishing the plastered surface smooth using wooden floats, bars, etc. only to proper plumbs and level, making grooves, beads and drip coarse to give required ornamental finish as per drawing including cost of all materials, conveyance, loading and unloading, royalties, cost of all labour, scaffolding, staging, watering before plastering and curing, sundries and T&P, etc. complete as per direction of the Engineer-in-charge.							
A	GROUND FLOOR	sqm	175.35		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	148.96		0.00	0.00	0.00	0.00
14	Providing 18mm C.P. in two coats underlayer 12mm C.P. 1:6 and top layer 6mm thick C.P. 1:6 finished even and smooth on masonry walls including racking out joints, scrapping and cleaning the surface and finishing the plastered surface smooth to proper plumbs and levels and providing grooves as shown in the drawing including cost of all materials, labour, conveyance, loading and unloading, royalty, scaffolding, watering, curing, sundries, tools and plants, etc., complete excluding GST as per the direction of the Engineer-in-charge.							
A	GROUND FLOOR	sqm	232.18		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	235.56		0.00	0.00	0.00	0.00
17	Providing vitrified tile flooring using Matt vitrified tiles having thickness of 8mm to 10mm conforming to IS 13756 of 600mm x 600mm / 600mm x 300mm Colour & Printed Series (homogeneous) of approved quality of Somany / Kajaria / Asian / Johnson or equivalent in all floors at all height on 20mm thick bed of cement mortar of mix (1:4) laid in proper slope and gradient with screened and washed sharp sand for mortar and grouted with epoxy grout with required quantities of pigments of approved marks to match the shades of the vitrified tile if required watering and curing for 21 days, including cost, conveyance, loading, unloading, royalties and taxes of all materials, cost of all labour, sundries, T&P required for the work, complete in all respect as per specification and direction of Engineer-in-charge.							
A	GROUND FLOOR	sqm	106.82		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	102.19		0.00	0.00	0.00	0.00
18	Supplying , fitting and Fixing Matt finish full body vitrified tile in dado /skirting of 10MM thick, size 600mm x 600mm with water absorption less than 0.3 % of somany / Kajaria of approved make having base price of the tile Rs. 90 / sqft confirming to I.S.15622 laid on 12mm thick cement mortar (1:3) (1 cement : 3 coarse sand) and filling joints with white cement of approved quality including cost of all materials, labour, T&P etc. required for the work all complete as per direction of Architect							
A	GROUND FLOOR	sqm	20.27		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	20.73		0.00	0.00	0.00	0.00

	Providing, fitting & fixing anti-skid ceramic floor tiles in flooring in toilets using special plain/ printed series anti-skid ceramic floor tile of premium grade (having minimum thickness 7 mm to 8 mm & size 300 mm x 300 mm confirming to IS 13755 of approved quality and shade of Somany/ Kajaria on 20mm thick bed of cement mortar of mix (1:4) laid in proper slope and gradient with screened & washed sharp river sand for mortar ceramic floor tiles with neat white cement slurry, mixed with required (tiles are to be immersed in the water for required time before use) quantities of pigments of approved marks to match the shades of the anti-skid ceramic floor tiles if required including cost, conveyance, loading, unloading, stacking, royalties of all material, cost of all labour, sundries, T&P required for the work, watering, complete in all respect as per specification excluding GST as per specification as directed by Engineer-in-charge. (Note- sample of tiles shall be approved before procurement and use)							
A	GROUND FLOOR	sqm	10.46		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	7.44		0.00	0.00	0.00	0.00
	Providing & Fixing tiles of size 30cm x 45 cm glazed ceramic wall tiles of premium grade of approved quality and shade having thickness 8mm to 10mm confirming to IS 13755 in dados skirting and risers of steps on 12mm thick cement plaster (1:3) to proper slope, line and level including cutting to required size and shape, fixing at corners and splays etc including filling the joints with neat white cement slurry mixed with pigments to match the shade of the tiles including cost, Conveyance, loading, unloading, stacking, royalties of all materials, cost of all labour, T&P, sundries, watering and curing for the required period for the work complete in all respect excluding GST as directed by the Engineer-in-charge. (Note- Sample of tiles shall be approved before procurement and use.) (All toilets wall)							
A	GROUND FLOOR	sqm	48.48		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	33.84		0.00	0.00	0.00	0.00
19	Providing Granite stone prepolished 20mm thick of area above 0.40 Sqm in flooring of approved quality, colour and size in floors, treads on steps and landings in all floors at all height on 20mm thick bed of cement mortar of mix (1:4) laid in proper slope and gradient with screened and washed sharp sand for mortar and grouted with neat white cement slurry jointing the tile with neat white cement slurry mixed with required quantities of pigments of approved marks to match the shades of the granite tile if required watering and curing for 21 days, including cost, conveyance, loading, unloading, royalties of all materials, cost of all labour, T&P required for the work etc. complete in all respect as per specification and direction of Engineer-in-charge.							
A	GROUND FLOOR	sqm	21.77		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	17.39		0.00	0.00	0.00	0.00

20	Providing Granite stone prepolished 10mm thick in dado of approved quality, colour and size in dado, riser of steps and dado of landings in all floors at all height on 12mm thick bed of cement mortar of mix <b>(1:3)</b> with screened and washed sharp sand for mortar and grouted with neat white cement slurry jointing the tile with neat white cement slurry mixed with required quantities of pigments of approved marks to match the shades of the granite tile if required watering and curing for 21 days, including cost, conveyance, loading, unloading, royalties of all materials, cost of all labour, T&P required for the work etc. complete in all respect as per specification and direction of Engineer-in-charge.							
A	GROUND FLOOR	sqm	4.88		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	4.88		0.00	0.00	0.00	0.00
21	Providing edge moulding to 18 mm thick granite stone counters, Vanities, steps etc., including machine polishing to edge to give high gloss finish including making three nos of groove over tread etc. complete including cost, conveyance, loading and unloading and ,es of all materials, cost of all labour, sundries, T&P, scaffolding etc. required for the work and complete in all respect as directed by the Engineer in charge.							
A	GROUND FLOOR	rnm	62.30		0.00	0.00	0.00	0.00
B	FIRST FLOOR	rnm	68.95		0.00	0.00	0.00	0.00
	Providing,Fixing 16m thick Kota stone in floors treads or steps and landing on 20mm thick cement mortar (1:4) (1cement : 4 course and) and filling joints with of approved quality including cost, conveyance, taxes, cost of all labour etc. complete							
A	GROUND FLOOR	sqm	21.98		0.00	0.00	0.00	0.00
	Providing,Fixing 16m thick Kota stone in dado ,riser on 12mm thick cement mortar (1:3) (1cement : 3 course and) and filling joints with of approved quality including cost, conveyance, taxes, cost of all labour etc. complete.							
A	GROUND FLOOR	sqm	24.96		0.00	0.00	0.00	0.00
25	Providing and fixing in position wood plastic composite door frame with appropriate length of ETA Approved carbon steel galvanized (minimum 5 microns) double threaded 6.8 grade Polyamide PA 6 grade sleeve HRD C 10 anchor suitable for fastenings both on concrete & masonry/aerated blocks including cost of all materials, labours, T & P etc required for the work. complete in all respect as directed by the Architect/Engineer-in-charge							
A	GROUND FLOOR	rnm	28.85		0.00	0.00	0.00	0.00
B	FIRST FLOOR	rnm	93.10		0.00	0.00	0.00	0.00
26	Providing , fitting & fixing of 32mm thick flush door shutter with 32mm thick BWP block board and paisting 1 mm thick laminate to both sides with adhesive including fitting & fixing of all fixtures like godrej make ofice lock haveing model. No. 6548. Godrej make door clouser having model no- 2701. including cost of all materials, all labour, all T&P etc. required for the work complete in all respect as per the direction of the Engineer-in-Charge excluding G.S.T.							
A	GROUND FLOOR	sqm	11.64		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	39.12		0.00	0.00	0.00	0.00

27	Supplying, fitting and fixing of M.S grills, Grill window ( as per I.S. specification and as per approved drawings ) in proper position in all floors and at all height including making holes to brick walls/ R.C.C structure/wood work etc. and making good to the damaged walls/ structures with cement concrete (1:2:4) with black hard crusher broken granite stone chips of 12mm to 20mm size ( 20mm size not to exceeds 25% ) including watering and curing etc. complete in all respect as directed by the Engineer in charge ( W.I. / M.S. windows grills, grill gates, collapsible gates with top and bottom rails, steel windows, steel doors, steel frames for doors and windows, staircase and parapet railings square bar along with required nos. of nails and screws and other required materials of approved quality and approved size shall be supplied by the contractor at his own cost.)							
A	GROUND FLOOR	KG	582.75		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	KG	891.50		0.00	0.00	0.00	0.00
28	Finishing wall surface of walls with <b>wall putty (water based)</b> of approved make and finished smooth and even surface to receive painting including cost of scaffolding staging charges with cost of all materials, labour T&P etc. complete the work as per the direction of engineer incharge.							
A	GROUND FLOOR	sqm	578.22		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	818.21		0.00	0.00	0.00	0.00
29	Providing Wall painting with <b>cement primer(oil bound )one coat</b> to the internal wall surface including cost of all materials, labour, Tools & Plant, Brushes etc. complete in all respects as per the direction of engineer incharge.							
A	GROUND FLOOR	sqm	578.22		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	818.21		0.00	0.00	0.00	0.00
30	Providing Wall painting with Oil bound distemper paint two and more coats to all New work to get an even shade including cost of all materials, labour, Tools & Plant, Brushes etc. complete in all respects as per the direction of engineer incharge (interior)							
A	GROUND FLOOR	sqm	578.22		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	818.21		0.00	0.00	0.00	0.00
31	Painting to external surface of building with <b>two coats of weather seal coat</b> of approved shade and quality of approved design after cleaning by watering & removing the dirts etc. to the surface to be painted including watering, curing, cost, conveyance of all materials, cost of all labour, brushes, T&P etc. and necessary scaffolding work complete as directed by the Engineer-in-charge.							
A	GROUND FLOOR	sqm	232.18		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	235.56		0.00	0.00	0.00	0.00
31	Providing Wall painting with <b>cement primer(water bound) one coat to the external wall surface</b> including cost of all materials, labour, Tools & Plant, Brushes etc. complete in all respects.							
A	GROUND FLOOR	sqm	232.18		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	235.56		0.00	0.00	0.00	0.00
32	Providing and painting <b>two coats with synthetic enamel paint</b> of approved quality and approved shade confirmming to ISI on steel work to give an even shade in all floors at all height over a coat of primer of approved quality and shade including sand papering and making the surface smooth with cost, coveyance, loading and unloading, of all materials, cost of all labour, sundries, T&P, scaffolding etc. required for the work and complete in all respect as directed by Engineer in charge							

A	GROUND FLOOR	sqm	1.17		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	1.79		0.00	0.00	0.00	0.00
33	Providing approved primer of one coat to the Iron work including cost of all materials, labour, Tools & Plant, Brushes etc. complete in all respects as directed by Engineer-In-Charge.							
A	GROUND FLOOR	sqm	1.17		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	sqm	1.79		0.00	0.00	0.00	0.00
34	Supplying, fitting and fixing of Stainless steel of 304 grade in hand railing using 50mm dia of 2mm thick circular pipe with Balustrade of size 32mm x 32mm x 2mm @ 0.90mtr. C/C and stainless square pipe bracing of size 32mm x 32mm x 2mm in 3 rows in stair case as per approved design and specification, buffing, polishing etc with cost, conveyance, cost of all labour,labour cess, T&P etc. required for the work complete in all respect as per direction of the Engineer-in-charge.							
A	GROUND FLOOR	kg	0.00		0.00	0.00	0.00	0.00
B	FIRST FLOOR & HEAD ROOM	kg	0.00		0.00	0.00	0.00	0.00
35	Providing 2.5 cm thick grading concrete(1:2:2) on roof slab using 6mm size hard granite chips including hoisting, lowering, laying, concrete with watering, curing in all floors with cost, conveyances, royalty of all materials, all labour, labour cess, T&P etc. complete as per direction of the Engineer in charge							
A	FIRST FLOOR & HEAD ROOM	Sqm	214.38		0.00	0.00	0.00	0.00
36	Providing & applying of pre constructional anti-termite treatment by drilling 12mm dia holes at distance of 30cm @ junction of wall & floor about 300mm apart deep enough to reach the soil below & chemical emulsion (PREMISE, IMIDACHLOPRIED 30.5SC OF BAYER MAKE mixed with 47.5ltr water) pumped these holes to soak the soil @ 1 ltr solution of each hole as per manufactures specification & the holes should be plugged the filling materials including cost of all materials, labour,conveyance, T&P , all taxes and hire charges of machinaries as per direction of Engineer-in-charge.	Sqm	148.46		0.00	0.00	0.00	0.00
37	Providing and fixing of UPVC sliding windows 2 /3track sliding-60 series/Top hung ventilator of any approved make ,duly manufactured using upvc reinforced profiles of 62mm x 60mm x 2.25mm for outer frame, 66mm x 38mm x 2.25mm for sliding shutter frames capable of mounting single glazing system,structurally reinforced with hot dip galvanised upto 50 microns of minimum thickness of 1.2 mm prefabricated and welded through fusion welding & the window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal including the cost of all materials,necessary locking arrangements ,fittings,cost of labour,T&P ,etc complete as per direction of Engineer-in-charge.							
A	GROUND FLOOR	sqm	23.31		0.00	0.00	0.00	0.00
B	FIRST FLOOR	sqm	35.66		0.00	0.00	0.00	0.00

36	<p>Waterproofing to the roof slab</p> <p>(a) Surface preparation : Cleaning the surface thoroughly by chipping the roof slabs using breakers, wire brush, mechanical grinder for making it free from all loose particles, dust etc. then total cleaning through air blower followed by water jetting and allowing the surface to dry.</p> <p>(b) Application : Supply and application of Nano Technology OrganoSilane based Zycosil + @ 1:20 (one part Zycosil + and 20 parts of clean water) to the saturation level on the entire flat surface and upto 300mm (1ft.) to the parapet walls and then allowing for drying 24 hrs., test the surface for hydrophobicity. Then application of 100% acrylic co-polymer Zycoprime+, cement and fine sand (100 mesh) mixed at a consistency of paste form and filling drainage pipes gaps. Then application of one coat of Zycoat mix of Zycoprime + and grey cement @ 1:1.5 ratio ( 1 part Zycoprime + and 1.5 part cement). 2nd coat of Zycoat mix to be applied after the drying of first coat in the same procedure followed by sprinkling of sieved sand on the top of the slurry. Then allow it to dry followed by proper curing with water for at least two days.</p> <p>(c) Coving : Coving has to be done with Zycomix (a mortar prepared with Zycoprime+, cement and sand in the ratio of 1:5:15 and water as per workability to obtain a uniform paste). Finally cure with water to the entire treated roof and parapet wall for three days</p>							
a	FIRST FLOOR	SQM	214.38		0.00	0.00	0.00	0.00
	<p>Water proofing to the sunken slab</p> <p>(a) Surface preparation : Cleaning the surface thoroughly by wire brush, mechanical grinder for making it free from all loose particles, dust etc. then total cleaning through air blower followed by water jetting and then allowing the surface to dry.</p> <p>(b) Application before PCC : Supply and application of Nano Technology OrganoSilane based Zycosil+@ 1:20 (one part Zycosil+ and 20 parts of clean water) to the saturation level on the entire flat surface and upto to the height of the sunken slab casted and then allowing for drying 24 hrs., test the surface for hydrophobicity.</p> <p>(c) Coving : Coving has to be carried on with Zycomix (a mortar prepared with Zycoprime+, cement and sand in the ratio of 1:5:15 and water as per workability to obtain a uniform paste). This should be followed by application of Zycoat on the corner surface of the sunken slabs. The above Zycomix must be applied in the gaps of pipe joints in the sunken slabs followed by application of Zycoat. (Note : The ainkling of sieved sand on the top of the slurry. Then allow it to dry followed by proper curing with water for at least two days.</p> <p>(c) Coving : Coving has to be done with Zycomix (a mortar prepared with Zycoprime+, cement and sand in the ratio of 1:5:15 and water as per workability to obtain a uniform paste). Finally cure with water to the entire treated roof and parapet wall for three days</p>	sqm	7.44		0.00	0.00	0.00	0.00

	Providing & filling sunken slab with 40mm size brick bat with overburnt kiln burnt bricks including filling, compacting, watering, levelling the same as per the direction of Engg-in-Charge with all material, labour, scaffolding, tools, plant etc for complete	cum	1.12		0.00	0.00	0.00	0.00
	Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8 mm having with water absorption less than 0.5% and conforming to IS:15622 of approved make in all colours and shades in for outdoor floors such as footpath, courtyard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge							
	GROUND FLOOR	SQM	11.16		0.00	0.00	0.00	0.00
	Supplying, fitting and fixing in position 16mm thick chequered tile of approved make and quality, colour and size in all floors at all height on 25mm thick bed of cement mortar of mix (1:1) laid in proper slope and gradient with screened and washed sharp sand for mortar and with Portland Slag Cement (PSC) grouted with neat white cement slurry with required quantities of pigments of approved marks watering and curing for 21 days, including cost, conveyance, loading, unloading, royalties and taxes of all materials, cost of all labour, sundries, T&P required for the work complete in all respect as directed by the Engineer-in-charge							
	GROUND FLOOR		19.26		0.00	0.00	0.00	0.00
	<b>TOTAL TRANSIT HOUSE CCIVIL WORK (E.1)</b>							<b>0.00</b>
<b>E.2</b>	<b>COVERED DRAIN FOR TRANSIT HOUSE</b>							
1	Earth work in excavation in all kinds of soil (Ordinary, hard soil & stoney earth soil) for foundation trenches within 50m. Initial lead and 1.5m initial lift including rough dressing and beaking clods to maximum 5 cm to 7 cm and laying in layers not exceeding 0.3 m in depth and as per specification approved by the department	CUM	39.38		0.00	0.00	0.00	0.00
2	Supplying, filling in foundation and plinth with sand including watering and ramming with cost, conveyance, royalties of sand with labour and T&P required for the work etc. complete (Measurement will be taken on finished compacted section only)	CUM	7.88		0.00	0.00	0.00	0.00
3	Providing & laying Plain Cement concrete (PCC) of proportion (1:3:6) in foundation and floors using 4cm (1½") size clean hard black crusher broken granite stone metal of approved quality and from approved quarry including hoisting, lowering and laying concrete in layers not exceeding 15 cm. (6") thick to the required level ramming, watering, curing etc. complete including cost, conveyance, royalties and ,es of all materials with all labour, cess and T&P required for the work etc. complete in all respect.	CUM	7.88		0.00	0.00	0.00	0.00
4	R.C.C. work of Grade- M 25 in following works using 20mm size & down graded hard black crusher broken granite stone chips of approved quality from approved quarry in specified proportion including hoisting, lowering, laying and compacting concrete, watering and curing and finishing the exposed surfaces smooth with cost, conveyance, royalties, taxes of all materials with all labour and T&P required for the work etc. complete in all respect but excluding the cost and conveyance of M.S./TMT/HYSD rods or Tor steel and binding wire of 18 to 20 gauge and labour charges for straightening, cutting, bending, binding and tying the grills and placing in proper position, centering & shuttering							
a)	R.C.C. floor and roof slabs, landings, balconies, projecting sun shades and chajjas upt 4.3m height	CUM	10.50		0.00	0.00	0.00	0.00

5	Reinforcement for RCC work including straightening, cutting, bending, placing in position HYSD and binding all complete. lifting and placing in position as per design complete including cost of bars , binding wires , including cost of all materials, labour, conveyance, loading and unloading,, royalties, sundries, tools and plants, etc. complete as per the direction of the Engineer-in-charge. (linear measurement will be taken and quantity will be calculated on standard weight for all heights)-Thermo Mechanically Treated bars	QNTL	5.25		0.00	0.00	0.00	0.00
6	Providing Brick work with Fly ash bricks 23cm x 11cm x 8cm size having crushing strength not less than 75 kg/cm2 with dimensional tolerance +/- 2 percent in cement mortar (1:6) ( 1 cement: 6 sand), with all necessary projection, splay cutting, circular moulding, corbelling, etc., including cost of all materials, labour, conveyance, loading ,and unloading, royalties, scaffolding, watering, curing, sundries, tools and plants, etc., as per the direction of the Engineer-in-charge	CUM	15.75		0.00	0.00	0.00	0.00
7	Providing neat cement punning over plastered/ concrete surface including watering and curing complete with cost, conveyance, loading and unloading, royalties of all materials and cost of all labour, T&P and scaffolding required for the work etc. as directed by the Engineer in charge.	SQM	122.50		0.00	0.00	0.00	0.00
8	Providing 12 mm. thick cement plaster in all floors at all height with cement mortar of mix (1:6) with portland slag cement (PSC) finished smooth to inside rough surface of brick masonry walls after racking out joints including watering and curing rounding of corners etc. complete with cost, conveyance, loading and unloading, royalties and ,es of all materials and cost of all labour, T&P, sundries and scaffolding required for the work etc. with providing grooves as directed by the Engineer in charge.	SQM	122.50		0.00	0.00	0.00	0.00
<b>Total COVERED DRAIN FOR TRANSIT HOUSE (E.2)</b>								<b>0.00</b>
<b>E.3</b>	<b>PLINTH PROTECTION FOR TRANSIT HOUSE</b>							
1	Earth work in excavation in all kinds of soil (Ordinary, hard soil & stoney earth soil ) for foundation trenches within 50m. Initial lead and 1.5m initial lift including rough dressing and beaking clods to maximum 5 cm to 7 cm and laying in layers not exceeding 0.3 m in depth and as per specification approved by the department	CUM	7.00		0.00	0.00	0.00	0.00
2	Supplying, filling in foundation and plinth with sand including watering and ramming with cost, conveyance, royalties of sand with labour and T&P required for the work etc. complete (Measurement will be taken on finished compacted section only)	CUM	7.88		0.00	0.00	0.00	0.00
3	Providing & laying Plain Cement concrete (PCC ) of proportion (1:4:8) in foundation and floors using 4cm (1½") size clean hard black crusher broken granite stone metal of approved quality and from approved quarry including hoisting, lowering and laying concrete in layers not exceeding 15 cm. (6") thick to the required level ramming, watering, curing etc. complete including cost, conveyance, royalties and ,es of all materials with all labour, cess and T&P required for the work etc. complete in all respect.	CUM	3.15		0.00	0.00	0.00	0.00
4	Providing & laying Plain cement concrete (1:2:4) using 12mm size black hard crusher broken granite chips of approved quality from approved quarry including hoisting, lowering and laying concrete in layers, watering, curing etc. complete including cost, conveyance, royalties of all materials with labour, cess and T&P etc. required for the work complete	CUM	2.10		0.00	0.00	0.00	0.00

5	Providing Brick work with Fly ash bricks 23cm x 11cm x 8cm size having crushing strength not less than 75 kg/cm2 with dimensional tolerance +/- 2 percent in cement mortar (1:6) ( 1 cement: 6 sand), with all necessary projection, splay cutting, circular moulding, corbelling, etc., including cost of all materials, labour, conveyance, loading ,and unloading, royalties, scaffolding, watering, curing, sundries, tools and plants, etc., as per the direction of the Engineer-in-charge.	CUM	8.40		0.00	0.00	0.00	0.00
6	Providing 12 mm. thick cement plaster in all floors at all height with cement mortar of mix (1:6) with portland slag cement (PSC) finished smooth to inside rough surface of brick masonry walls after racking out joints including watering and curing rounding of corners etc. complete with cost, conveyance, loading and unloading, royalties and ,es of all materials and cost of all labour, T&P, sundries and scaffolding required for the work etc. with providing grooves as directed by the Engineer in charge.	SQM	35.00		0.00	0.00	0.00	0.00
<b>Total PLINTH PROTECTION FOR TRANSIT HOUSE (E.3)</b>								<b>0.00</b>
<b>E.4</b>	<b>TRANSIT HOUSE ELECTRICALS</b>							
	<b>All the electrical work as mentioned below shall be complete in all aspect for proper, safe operation and as per instruction of site engineer including the cost of all material &amp; accessories, T &amp; P, labour as required.</b>							
1.1(a)	<b>GROUP A</b> :Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm <b>FRLS</b> PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required. <b>((Make :Legrand(Myrius)/MK(elements)/Panasonic(Europa)/Hager(Insysta)/Eq make</b>	Nos.	10		0.00	0.00	0.00	0.00
(b)	<b>GROUP B</b> : Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm <b>FRLS</b> PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required. <b>((Make :Legrand(Myrius)/MK(elements)/Panasonic(Europa)/Hager(Insysta)/Eq make</b>	Nos.	10		0.00	0.00	0.00	0.00
(c)	<b>GROUP C</b> : Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm <b>FRLS</b> PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required. <b>((Make :Legrand(Myrius)/MK(elements)/Panasonic(Europa)/Hager(Insysta)/Eq make</b>	Nos.	20		0.00	0.00	0.00	0.00
(b)	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required. <b>((Make :Legrand(Myrius)/MK(elements)/Panasonic(Europa)/Hager(Insysta)/Eq make</b>	Nos.	10		0.00	0.00	0.00	0.00

(e)	Recessed wiring for 5 / 6 amp socket outlet with 2 x 1.5 sq.mm FR PVC insulated single core multistrand copper conductor of ISI marked in recess 20 mm dia non-metallic PVC flexible conduit with modular type switch ,4 module 18SWG modular GI box and earthing point with 1 x 1.5 sq.mm FR PVC insulated single core multistrand copper conductor for loop earthing etc. as required. ( <b>Make of wire Finolex / Anchor / Havels / V Guard/KEI</b> )	Nos.	8		0.00	0.00	0.00	0.00
1.2	Supplying and fixing of 4module GI box with cover on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 5 pin 15 / 16 amps socket outlet and 15 / 16 amps modular type switch, connection, painting etc as required.( <b>Make-Anchor/crabtree/Legrand</b> )	Nos.	8		0.00	0.00	0.00	0.00
1.3	Recessed wiring for 5 / 6 amp socket outlet with 2 x 1.5 sq.mm FR PVC insulated single core multistrand copper conductor of ISI marked in recess 20 mm dia non-metallic PVC flexible conduit with modular type switch ,6 module 18SWG modular GI box and earthing point with 1 x 1.5 sq.mm FR PVC insulated single core multistrand copper conductor for loop earthing etc. as required. ( <b>Make of wire Finolex / Anchor / Havels /KEI</b> )	Nos.	8		0.00	0.00	0.00	0.00
1.4	Supplying and fixing of 100W,step type regulator, 2 Module without base and cover including connection etc as required.( <b>Make :Legrand(Myrius)/MK(elements)/schneider(Zencelo)</b> )	Nos.	8		0.00	0.00	0.00	0.00
1.5	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Nos.	2		0.00	0.00	0.00	0.00
1.6	Wiring to Telephone Socket Outlet from Junction Box with 0.5 mm <sup>2</sup> Twin Pair Copper Conductor Telephone Wire run inside prelaid PVC Conduit complete including termination, testing etc complete as required and as per Direction of Engineer-In-Charge. ( <b>Make :Legrand(Myrius)/MK(elements)/schneider(Zencelo)</b> )	Mtrs.	80		0.00	0.00	0.00	0.00
1.7	Supply, delivery, installation and testing of TV Antenna Wires RG6 in PVC Pipe and making good the damages caused complete as required and as per Direction of Engineer-In-Charge. ( <b>Make :Legrand(Myrius)/MK(elements)/schneider(Zencelo)</b> )	Mtrs.	80		0.00	0.00	0.00	0.00
1.8	Supplying and fixing of RJ11 telephone jack single with shutter & RJ 45 computer jack with shutter, 2module modular base and cover including connection for telephone and LAN . ( <b>Make :Legrand(Myrius)/MK(elements)/schneider(Zencelo)</b> )	NO	4		0.00	0.00	0.00	0.00
1.9	Supplying and fixing T.V. antenna socket outlet piano type ISI marked on the existing switchboard / cover including connections etc as requird.	NO	4		0.00	0.00	0.00	0.00
19.1	Supply, delivery and laying of following sizes of 2 mm Wall thickness rigid PVC Conduit Concealed in Wall/ Column/ Roof Slab of the Building or mounted on surface along with other accessories and 18 SWG GI Fish Wire complete for Telephone / TV / Computer / Circuit or Sub main wiring as required & as per Direction of Engineer-In-Charge							
(a)	20 mm dia.	Mtrs.	40		0.00	0.00	0.00	0.00
(b)	25 mm dia.	Mtrs.	45		0.00	0.00	0.00	0.00
2	Wiring for <b>Circuits</b> and <b>Submain</b> with following number & sizes of PVC insulated 1100 Volt Grade Multistranded Copper Conductor <b>FRLS</b> Wire run inside 2 mm thick PVC Conduit Pipe Recessed in Ceiling / Column / Walls of Building including supply of all materials such as wires, PVC Conduit, Junction Box & Pull Box etc. complete with making good the damages caused as required and as per Direction of Engineer-In-Charge. ( <b>Make of wire Finolex/Anchor/Havels/KEI</b> )							

(a)	2 Nos. Single Core 1.5 mm <sup>2</sup> <b>FRLS</b> Copper Wire for Phase and Neutral and 1 No. Single Core 1.5 mm <sup>2</sup> <b>FRLS</b> Copper Wire for Earth Continuity Conductor as per <b>SLD (Make of wire Anchor/Havels/KEI)</b>	Mtrs.	200		0.00	0.00	0.00	0.00
(b)	2 Nos. Single Core 2.5 mm <sup>2</sup> <b>FRLS</b> Copper Wire for Phase and Neutral and 1 No. Single Core 1.5 mm <sup>2</sup> <b>FRLS</b> Copper Wire for Earth Continuity Conductor as per SLD (from LDB to Room & Power Point and Common Light Point looped). <b>(Make of wire Anchor/Havels/KEI)</b>	Mtrs.	150		0.00	0.00	0.00	0.00
(c)	2 Nos. Single Core 4.0 mm <sup>2</sup> <b>FRLS</b> Copper Wire for Phase and Neutral and 1 No. Single Core 2.5 mm <sup>2</sup> <b>FRLS</b> Copper Wire for Earth Continuity Conductor as per <b>SLD.(Make of wire Anchor/Havels/KEI)</b>	Mtrs.	100		0.00	0.00	0.00	0.00
(d)	4 Nos. Single Core 16.0 mm <sup>2</sup> <b>FRLS</b> Copper Wire for Phase and Neutral and 2 No. Single Core 10 mm <sup>2</sup> <b>FRLS</b> Copper Wire for Earth Continuity Conductor as per <b>SLD.(Make of wire Anchor/Havels/KEI)</b>	Mtrs.	80		0.00	0.00	0.00	0.00
<b>3</b>	<b>BRANCH DISTRIBUTION BOARDS:</b>							
<b>3.1</b>	Supplying and fixing following way, Three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) <b>4 way, TPN DB Double door Make:LEGRAND(DX3)/SIEMENS(Betagaurd)/Schneider(Acti 9)/GE</b>	Nos.	2		0.00	0.00	0.00	0.00
<b>3.2</b>	Supplying and fixing following rating, 63 amp 4pole MCB , (Three phase and neutral), 415 V having a sensitivity current 10 KA in the existing MCB DB complete with connections, testing and commissioning etc. as required. <b>Make:LEGRAND(DX3)/SIEMENS(Betagaurd)/Schneider(Acti 9)/GE</b>	Nos.	2		0.00	0.00	0.00	0.00
<b>3.3</b>	Supplying and fixing 5 amps to 32 amps rating, Single pole 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required	Nos.	20		0.00	0.00	0.00	0.00
<b>3.6</b>	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	Nos.	5		0.00	0.00	0.00	0.00
<b>4</b>	<b>MAIN DISTRIBUTION BOARD</b>							
	Supplying, Installing, Testing and Energizing TYPE TESTED IEC61439 Panel Board made of 2 mm thick CRCA Sheet with Hinged Door duly Fabricated with required MS Angle and Channels of adequate size, duly treated and Powder Coated (shall have Hinged Door at the Front and Detachable Plates at Back if requirement and at Top / Bottom for Cable / Wire Entry / Exit as per the Direction of Engineer-In-Charge and approved GA Drawing with following provisions. <b>MAKE-L&amp;T / LEGRAND / C&amp;S)</b>							
	Main Panel Board: 100 Amp. 4P MCCB 36 KA (Thermal Magnetic Release) - 1No, 125 AMP 4WAY AUTO CHANGOVER SWITCH 1 NO, Equipments: 4 Nos. 1250 Amp. Copper Bus Bar coated with PVC Heat Shrunken Sleeve (Colour Code). 1 No. VAF Digital Meter. 3 Nos. RYB LED Indicator. 3 Nos. 100 / 5 Amp. C.T. Operated. Outgoing: 3 NOS 63 Amp 4p MCB 10 KA, 3 Nos 40 AMP 2P MCB 10 KA, 1 Nos of sub Meter connection With spreader tinle & cable alloy 1no. Digital multi function meter seamless integration , industry standard modbus rtu protocol HMI LCD display with following parameters displayed - Phase Current, Neutral Current, Ground Current, Voltage Line-to-Line, Voltage Line-to-Neutral, Frequency, Real Power (kW), Apparent Power (kVA), Power Factor, Energy (kW-Hours,	set	1		0.00	0.00	0.00	0.00

<b>6</b>	<b>FITTINGS &amp; FIXTURES:</b>							
6.1	Supply,Installation and testing of following types of LED Tube Fixtures Directly on Wall / Ceiling/ Structure of Building with all accessories such as Electronics Ballast, Lamps, Stove Enameled Box, Perplex Sheet Cover etc. complete assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge. <b>Make- PHILIPS, ,WIPRO,LT,PANASONIC,BAJAJ,TRILUX, PAC,HALONIX/Eq make</b>							
(A)	Supply of Surface mounted indoor type 20 WATT LED Inverter LED Batten with Opal Diffuser, IP20, Battery back-up & Functioning as per Product TDS complete assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge(Make-Halonix Cat No LED INVERTER BATTEN HLB-08-20-CW-INV/WIPRO/CROMPTON/LT/PHILIPS	Nos.	10		0.00	0.00	0.00	0.00
(B)	Supply of 18 watt Surface mounted indoor type Round LED Luminaire with LED GLARE FREE opal diffuser ,IP20 Lamp complete assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge	Nos.	15		0.00	0.00	0.00	0.00
C)	Supply 36 W LED premises LIGHT 6500 CCT complete assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge	Nos.	2		0.00	0.00	0.00	0.00
E)	Supply of 10 W LED Bulb in B-22 cap and with Opal Diffuser, Functioning as per Product TDS Luminaire with LED complete assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge	Nos.	5		0.00	0.00	0.00	0.00
F)	Supply of 6 W LED Bulb in B-22 cap and with Opal Diffuser, Functioning as per Product TDS Luminaire with LED complete assembly With supply of required T&P and making connection from the suitable point outlet as per the Direction of Engineer-In-Charge	Nos.	6		0.00	0.00	0.00	0.00
6.2	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting of all types, complete with all accessories and tube/lamp etc. directly on ceiling/ wall, including connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Nos	38		0.00	0.00	0.00	0.00
6.3	Numbering of ceiling fan/ exhaust fan/ light fittings as required.	Nos.	50		0.00	0.00	0.00	0.00
7	Supply, delivery, installation and testing of following Sweeps of High Speed Energy Efficient A.C 1200 mm 48 " Sweep Ceiling Fan 210 CMM Air Delivery.. GOOD BYE Anti Dust Super striker Ceiling Fan complete with Fan Blades, Down Rod, Canopies & Capacitor etc. including supply of Sundry Materials, making connection from the suitable point outlet but excluding cost of Fan Regulator complete as required and as per the Direction of Engineer-In-Charge.( <b>Make- USHA , Halonix ,Bajaj</b> )	Nos.	8		0.00	0.00	0.00	0.00
7.1	Supply, delivery, installation & testing of following Sweep & Speed 230 mm EXHAUST FAN 1400 RPM. on Existing Sheet Metal Switch Board including loop connections and making good the damages caused complete as required and as per direction of Engineer-in-charge( <b>Make-USHA , Halonix ,Bajaj</b> )	Nos.	5		0.00	0.00	0.00	0.00
<b>8</b>	<b>EARTHING:</b>							
8.1	Providing and fixing 25 mm x 5 mm Copper earth strip in 40 mm dia G.I. pipe surface or in recess as strip electrode for connections etc. as required.and making good the damages caused complete as required and as per direction of Engineer-in-charge	meter	30		0.00	0.00	0.00	0.00

8.2	Extra for using salt and charcoal for G.I or copper plate earth as required and making good the damages caused complete as required and as per direction of Engineer-in-charge	set	2		0.00	0.00	0.00	0.00
8.3	Providing and fixing 8 SWG COPPER wire on surface or in recess for loop earthing along with existing surface / recessed conduit / submain wiring / cable as required and making good the damages caused complete as required and as per direction of Engineer-in-charge	Mtrs.	35		0.00	0.00	0.00	0.00
8.4	Earthing with COPPER plate 600 mm x 600mm x 6 mm thick ISI marked including accessories and providing masonry with cover plate having locking arrangement and watering pipe etc (But with out charcoal and salt) as required and making good the damages caused complete as required and as per direction of Engineer-in-charge	set	2		0.00	0.00	0.00	0.00
	<b>CABLE</b>				0.00	0.00	0.00	0.00
9	Laying of one number of PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of size exceeding 120 sq.mm but not exceeding 400 sq.mm direct in ground in the same trench in one , sand cushioning, protective covering and refilling the trench etc as required	Mtr	50		0.00	0.00	0.00	0.00
10	Supply, Laying and Testing of following Size XLPE insulated 1.1 Kv aluminium armoured cable making good the damages caused as required complete as per Direction of Engineer-In-Charge. <b>(Make: polycab,KEI)</b>							
a)	50 mm <sup>2</sup> 3 1/2 Core , Al Armoured , XLPE Cable	Mtrs.	90		0.00	0.00	0.00	0.00
11	Supply of all materials like cable lugs, gland etc as required & terminal of below mentioned cable complete as per required technical specifications & direction of FIC							
(a)	50 mm <sup>2</sup> 3 1/2 Core , Al Armoured , XLPE Cable	Nos	2		0.00	0.00	0.00	0.00
12	<b>Supplying of following Materials</b>							
a)	First Aid Box.	Set.	1		0.00	0.00	0.00	0.00
b)	Shock Treatment Chart (Odia / Hindi & English).	Set	1		0.00	0.00	0.00	0.00
c)	8 mm thick Rubber Mat.	Sqmtr.	12		0.00	0.00	0.00	0.00
d)	ABS type Fire Extinguisher of 4.5 Kg.	Set	2		0.00	0.00	0.00	0.00
e)	Danger Board.	Set	1		0.00	0.00	0.00	0.00
	<b>TOTAL TRANSIT HOUSE ELECTRICALS-(E.4)</b>							0.00
<b>E.5</b>	<b>TRANSIT HOUSE PH WORK</b>							
<b>A</b>	<b>WATER SUPPLY &amp; SANITARY WORKS</b>							
1	Providing, Supplying & Fixing of Rimless, Blind Installation wall Hung WC of CERA (CAT NO S1059102 and Cistern-B1510121), (Size :520x360x390mm) with PP soft close slim seat cover (Cat. No. B1510121 Cajol seat cover), Hinges, Accessories with all fittings & fixtures complete including making good the damages . including cost of all materials, labour, T&P, lead, royalty etc.complete in all respects as per direction of Architect /Engineer in charge.	EACH	5.00		0.00	0.00	0.00	0.00
2	Providing, Supplying & Fixing of Toilet roll Holder with Stainless steel flap of CERA (CAT- F5001109) with all fittings & fixtures complete including making good the damages . including cost of all materials, labour, T&P, lead, royalty etc.complete in all respects as per direction of Architect /Engineer in charge.	EACH	5.00		0.00	0.00	0.00	0.00

3	Providing, Supplying & Fixing of Hand Shower (Health Faucet) with 8mm dia, 1.2m long flexible tube and wall hook of CERA (F8030103)with all fittings & fixtures complete including making good the damages . including cost of all materials, labour, T&P, lead, royalty etc.complete in all respects as per direction of Architect /Engineer in charge.	each	5.00		0.00	0.00	0.00	0.00
4	Providing, Supplying & Fixing of Stop cock, male end with wall flange of CERA(F1018201) will all fittings & fixtures complete including making good the damages including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Architec/Engineer in charge.	each	5.00		0.00	0.00	0.00	0.00
5	Providing, Supplying & Fixing of 2 Way Bib cock with wall flange of CERA (F1018163) with all fittings & fixtures complete including making good the damages. including cost of all mateials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Architect/Engineer in charge.	each	5.00		0.00	0.00	0.00	0.00
6	Providing, Supplying & Fixing Basin of CERA of size 515x410x195 mm (CAT-NO. S2040120) with full pedestal height 850MM (CAT NO. S2090113 ) with all fitings & fixtures complete including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Architect/ Engineer in charge	EACH	5.00		0.00	0.00	0.00	0.00
7	Providing, Supplyin & Fixing of Basin inlet connection (angle valve) of CERA (F1018201) with all fittings & fixtures complete including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Architect/Engineer in charge	EACH	5.00		0.00	0.00	0.00	0.00
8	Providing, Supplying & Fixing Glass Shelf 300X300mm long of CERA (F5005103) with all fittings & fixtures complete including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Architect/Engineer in charge.	EACH	5.00		0.00	0.00	0.00	0.00
9	Providing, Supplying & Fixing pillar cock with aerator with long screws, shanks and back nuts of CERA (CAT-F2007101) with all fittings & fixtures complete including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Architect/Engineer in charge	each	5.00		0.00	0.00	0.00	0.00
10	Providing, Supplying & Fixing standard sized Single Towel rail of 600mm long, stainless steel complete with Chromiun Plated brass brackets of CERA (F5003103) with all fittings & fixtures complete including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Architect/ Engineer in charge.	each	5.00		0.00	0.00	0.00	0.00
11	Providing, Supplying & Fixing standard sized Chromium Plated brass towel ring(round) of CERA (F5003105) with all fittings & fixtures complete including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Architect/Engineer in charge	EACH	5.00		0.00	0.00	0.00	0.00
12	Providing, Supplying & Fixing Soap dish holder of CERA (F5007105) with all fittings & fixtures complete including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Architect/Engineer in charge	EACH	10.00		0.00	0.00	0.00	0.00

13	Providing, Supplying & Fixing Towel Shelf 600mm long with lower hangers, stainless steel complete with Chromiun Plated brass brackets ofCERA (F5007101) with all fittings & fixtures completer including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Architect/Engineer in charge.	EACH	5.00		0.00	0.00	0.00	0.00
14	Providing, Supplying & Fixing of Bib cock short body (with straight line model) with wall flange polished bright ofCERA (F2013151) with all fittings & fixtures completer including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Architect/Engineer in charge	each	5.00		0.00	0.00	0.00	0.00
15	Providing, Supplying & Fixing of Long body Bib cock with wall flange polished bright of CERA (CAT-SQT-512KN) with all fittings & fixtures completer including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Architect/Engineer in charge	each	5.00		0.00	0.00	0.00	0.00
16	Providing, Supplying & Fixing Overhead shower 70mm Round shape single flow (ABS Body Chorme plated with Gray face plate) with Rubit cleaning system (EOS-542A) and Shower arm 235mm long (Light weight) round shape for wall mounted showers with wall flange (ALE-536A) of CERAwth all fittings & fixtures completer including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Architect/Engineer in charge.	each	5.00		0.00	0.00	0.00	0.00
17	Providing, Supplying & Fixing of Concealed Stop cock, Heavy Body with Cap of CERA (F1018201) with all fittings & fixtures completer including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Architect/Engineer in charge.	each	5.00		0.00	0.00	0.00	0.00
18	Providing, Supplying & Fixing Double Coat hook ofCERA (F5003108) with all fittings & fixtures completer including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Architect/Engineer in charge	each	5.00		0.00	0.00	0.00	0.00
19	Providing, Supplying & Fixing 600mm x 300mm bevelled edge mirror of superior glass mounted on 5mm thick A.C sheet or plywood sheet with all fittings & fixtures completer including making good the damages. including cost of all materials, labour, T&P, lead, royalty etc. complete in all respects as per direction of Architect/Engineer in charge	EACH	5.00		0.00	0.00	0.00	0.00
20	Providing & Fixing of PVC nahani trap with 125mm stainless steel grating with/ without hole for waste pipe in floors / at any location cost includes all materials, labour, tools,plant etc. complete in all respects.as per price list of ASTRAL	EACH	10.00		0.00	0.00	0.00	0.00
21	Providing, Supplying and Fixing Stainless Stell A ISI 304 (18/8) wash Kitchen sink conforming to IS 13983 with C.I. Brackets, stainless steel waste coupling, 32mm dia PVC waste pipe and stainless steel plug 40 mm including painting of fittings and brackets of Parryware (CAT-C856299) with all fittings & fixtures complete including making good the damages . including cost of all materials, labour, T&P, lead, royalty etc.complete in all respects as per direction of Architect /Engineer in charge.	EACH	1.00		0.00	0.00	0.00	0.00
22	Fixing of sink cock with swinging long swivel spout (wall mounted model) with Aerator of CERA(CAT-F1003251) with all fittings & fixtures complete including making good the damages . including cost of all materials, labour, T&P, lead, royalty etc.complete in all respects as per direction of Architect /Engineer in charge.	EACH	1.00		0.00	0.00	0.00	0.00

23	Supplying all materials, labour, T&P and fitting and fixing U-PVC SWR soil waste ventilating pipes (type-A / ring fit type ) with all PVC fittings of ASTRAL/AJAY/SUPREME make as per IS 13592 to walls with nails, bobbins and laying in trenches including all pipe fittings, jointing materials, tools plant, labour & all material, earthwork in excavation in all kinds of soil and refilling of trenches as per specification and direction of the engineer in charge.							
a)	160mm dia PVC (SWR) pipe class "A" ( with wall thickness of 3.2mm to 3.8mm)	MTR	35.00		0.00	0.00	0.00	0.00
b)	110 mm dia PVC (SWR) pipe Class 'A' (with wall thick of 2.20 mm to 2.70 mm)	MTR	50.00		0.00	0.00	0.00	0.00
c)	75 mm dia PVC (SWR) pipe Class 'A' (with wall thick of 1.8 mm to 2.20 mm )	MTR	50.00		0.00	0.00	0.00	0.00
25	Providing all materials, labour and T&P for fixing of Upvc SWR fittings							
a	75 x 75 x 75mm single Tee with door	Each	8.00		0.00	0.00	0.00	0.00
b	110 x 110 x 110 mm single Tee with door	Each	8.00		0.00	0.00	0.00	0.00
c	75 x 75 x 75mm single Tee without door	Each	6.00		0.00	0.00	0.00	0.00
d	110 x 110 x 110 mm single Tee without door	Each	6.00		0.00	0.00	0.00	0.00
e	160 x 160x 110 mm Reducing Tee with door	Each	10.00		0.00	0.00	0.00	0.00
f	110 x 110 x 75 mm Reducing Tee with door	Each	10.00		0.00	0.00	0.00	0.00
g	75 mm x 87.50 Plane Bend	Each	15.00		0.00	0.00	0.00	0.00
h	110 mm x 87.50 Plane Bend	Each	15.00		0.00	0.00	0.00	0.00
i	75mm coupler	Each	15.00		0.00	0.00	0.00	0.00
j	110mm coupler	Each	30.00		0.00	0.00	0.00	0.00
k	75 mm vent cowl with SS Jali	Each	8.00		0.00	0.00	0.00	0.00
l	110 mm vent cowl with SS Jali	Each	8.00		0.00	0.00	0.00	0.00
m	75mm pipe clip	Each	50.00		0.00	0.00	0.00	0.00
n	110mm pipe clip	Each	50.00		0.00	0.00	0.00	0.00
o	160mm pipe clip	Each	50.00		0.00	0.00	0.00	0.00
p	110 mm x 75 mm Nahani Trap without Jali	Each	10.00		0.00	0.00	0.00	0.00
q	110 mm Square Gully Trap	Each	6.00		0.00	0.00	0.00	0.00
r	125 x 110mm WC Connector	Each	6.00		0.00	0.00	0.00	0.00
s	110mm WC Connector (Bend)	Each	6.00		0.00	0.00	0.00	0.00
t	110mm WC Connector (Straight)	Each	6.00		0.00	0.00	0.00	0.00
24	Providing and laying in trench cement concrete ( 1:4:8 ) with 40mm size hard granite metal in the following type of bedding for 150mm diameter including curing complete as per specification	MTR	100.00		0.00	0.00	0.00	0.00
25	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes of ( ASTRAL/AJAY/SUPREME) confirming to ASTM F442 Specific-2 having thermal stability for hot & cold water supply SDR 11 , including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.							
	<b>Internal work</b>							
V	GROUND FLOOR							
a	15 mm nominal outer dia Pipes	MTR	25.00		0.00	0.00	0.00	0.00
b	20 mm nominal outer dia Pipes	MTR	20.00		0.00	0.00	0.00	0.00
c	25 mm nominal outer dia Pipes	MTR	20.00		0.00	0.00	0.00	0.00
VI	FIRST FLOOR							
a	15 mm nominal outer dia Pipes	MTR	15.00		0.00	0.00	0.00	0.00
b	20 mm nominal outer dia Pipes	MTR	15.00		0.00	0.00	0.00	0.00
c	25 mm nominal outer dia Pipes	MTR	15.00		0.00	0.00	0.00	0.00

26	Providing all materials, labour, T&P for laying/fixing to wall or ceiling and floor uPVC solvent weld pipe Sch-80 as per ASTM-D-1785 and pipe fittings of following nominal bore with clamps including making good the wall, ceiling & floor all complete as per specification.							
	External work							
V	GROUND FLOOR							
e	40 mm nominal outer dia Pipes	MTR	30.00		0.00	0.00	0.00	0.00
VI	FIRST FLOOR							
e	40 mm nominal outer dia Pipes	MTR	20.00		0.00	0.00	0.00	0.00
f	50 mm nominal outer dia Pipes	MTR	50.00		0.00	0.00	0.00	0.00
27	Cutting grooves in pucca floors and walls for taking GI/PVC /CPVC pipes including making good the damages caused with cost of all material,labour, scaffolding, tools, plant, royalty etc. complete in all respects.	MTR	50.00		0.00	0.00	0.00	0.00
28	Supplying all materials, jointing materials, labour and T&P and fixing of uPVC pressure fittings (Sch-80) as per ASTM-D 2467 (Make: ASTRAL)							
a	20 mm	EACH	15.00		0.00	0.00	0.00	0.00
b	25 mm	EACH	15.00		0.00	0.00	0.00	0.00
c	32 mm	EACH	15.00		0.00	0.00	0.00	0.00
d	40 mm	EACH	15.00		0.00	0.00	0.00	0.00
e	50 mm	EACH	15.00		0.00	0.00	0.00	0.00
29	Supplying all materials,labours,T&P and cutting holes through existing brickwork including making good the damages in cement mortar (1:4) for taking GI /CPVC /PVC pipes and fittings etc all complete as per PH specification and direction of Engineer-in-charge	EACH	30.00		0.00	0.00	0.00	0.00
30	Supplying all materials,labour,T&P and fixing Rotational moulded polyethylene cylindrical vertical water storage tanks conforming to IS : 12701--1996 including cutting holes through the tank and fixing mild steel tubes and fittings and providing extra sockets and jam nuts, fixing ball valve etc, including hoisting upto a height of 5 metres above ground level and placing the tank to the required position and providing 1st class Fly ash brickwork in cement mortar (1:6) of 0.46m height in staging and in circular protection wall to support the tank, 12mm thick cement plaster (1:6) over brickwork, R.C.C slab of size 1.60mx1.60m and 0.10m thick, R.C.C beam of 0.25mx0.30m and 2.60m average length in cement concrete(1:2:4) using 12mm size h.g chips including centering and shuttering, watering, curing, conveyance of all materials to worksite etc all complete as per specification and direction of the Engineer in charge. Fixing 2000Ltr Roto-moulded water storage tank (Syntax Make) In first Floor	NO	1.00		0.00	0.00	0.00	0.00
<b>SUB TOTAL - WATER SUPPLY AND SANITARY WORK (E.5-A)</b>								<b>0.00</b>
<b>B SEPTIC TANK &amp; SOAK PIT</b>								
1	Earth work in excavation in all kinds of soil (Ordinary, hard soil & stoney earth soil ) for foundation trenches within 50m. Initial lead and 1.5m initial lift including rough dressing and beaking clods to maximum 5 cm to 7 cm and laying in layers not exceeding 0.3 m in depth and as per specification approved by the department	CUM	57.02		0.00	0.00	0.00	0.00
2	Extra lift of 1.5m or part there of over the initial lift of 1.5m in all kinds earth work ( 1st extra lift of 1.5mt (upto 7.5m)	CUM	51.84		0.00	0.00	0.00	0.00
3	Filling foundation trenches and plinth with excavated earth including laying the earth in layers not exceeding 23.5cm (9") thick ramming and watering with all leads and lifts including cost of all labour, T&P etc. complete as directed by the Engineer-in-charge	CUM	11.40		0.00	0.00	0.00	0.00

4	Supplying, filling in foundation and plinth with sand in 22.5 cm (9") thick layers including watering and ramming with cost, conveyance, royalties and taxes of sand with labour and T&P required for the work etc. complete (Measurement will be taken on finished compacted section only).	CUM	4.32		0.00	0.00	0.00	0.00
5	Providing & laying Plain Cement concrete (PCC ) of proportion (1:3:6) in foundation and floors using 4cm (1½") size clean hard black crusher broken granite stone metal of approved quality and from approved quarry including hoisting, lowering and laying concrete in layers not exceeding 15 cm. (6") thick to the required level ramming, watering, curing etc. complete including cost, conveyance, royalties and taxes of all materials with all labour, cess and T&P required for the work etc. complete in all respect.	CUM	4.32		0.00	0.00	0.00	0.00
6	Cutting, straightening coiled or bent up M.S. rods, HYSD steel or Tor Steel welding or jointing if necessary, bending, binding, tying the grills as required for RCC works, and hoisting, lowering and placing in proper position according to approved designs and drawings including cost, conveyance, loading, unloading, M.S. rods, HYSD steel or Tor steel and binding wires of 18 to 20 gauge required for the work and cost of all labour, sundries, T&P and scaffolding complete in all respect as directed by the Engineer-in-Charge (payment will be made according to the actual weight of M.S. rod, HYSD steel or Tor steel consumed in the work and no separate payment will be made towards weight of binding wires which is to be borne by the contractor at his own cost).	CUM	2.88		0.00	0.00	0.00	0.00
7	Providing strong, rigid, leveled, and plumbed centering and shuttering to required shape and size , for floors with ply or steel centering materials with all necessary bracing and tiles and supports with leveling centering covered with plastic sheet with provisions necessary holes and pockets for electrical conduits, pipes, P.H. pipes, for hooks or boxes, switch and board insert plates, clamps and extension bars etc., including dismantling the same after the required interval from the date of casting including cost of all materials, labour, conveyance, loading and unloading, taxes, royalties, scaffolding, watering, curing, sundries, tools and plants, etc., complete as per the direction of the Engineer-in-charge.							
a.	R.C.C. floor and roof slabs, landings, balconies, projecting sun shades and chajjas upto 4.3m height	SQM	28.80		0.00	0.00	0.00	0.00
8	Reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete. lifting and placing in position as per design complete including cost of bars , binding wires , including cost of all materials, labour, conveyance, loading and unloading, taxes, royalties, sundries, tools and plants, etc. complete as per the direction of the Engineer-in-charge. (linear measurement will be taken and quantity will be calculated on standard weight for all heights)-Thermo Mechanically Treated bars	QNTL	2.88		0.00	0.00	0.00	0.00
9	Providing Brick work with Fly ash bricks 25cm x 12m x 8cm size having crushing strength not less than 75 kg/cm2 with dimensional tolerance +/- 2 percent in cement mortar ( 1 cement: 6 sand), with all necessary projection, splay cutting, circular moulding, corbelling, etc., including cost of all materials, labour, conveyance, loading ,and unloading, taxes, royalties, scaffolding, watering, curing, sundries, tools and plants, etc., as per the direction of the Engineer-in-charge							
	Foundation & Plinth	CUM	25.99		0.00	0.00	0.00	0.00

10	Providing 16 mm. thick cement plaster in all floors at all height with cement mortar of mix (1:6) with portland slag cement (PSC) finished smooth to inside rough surface of brick masonry walls after racking out joints including watering and curing rounding of corners etc. complete with cost, conveyance, loading and unloading, royalties and taxes of all materials and cost of all labour, T&P, sundries and scaffolding required for the work etc. with providing grooves as directed by the Engineer in charge.	SQM	107.58		0.00	0.00	0.00	0.00
11	Providing neat cement punning over plastered/ concrete surface including watering and curing complete with cost, conveyance, loading and unloading, royalties and taxes of all materials and cost of all labour, T&P, sundries and scaffolding required for the work etc. as directed by the Engineer in charge.	SQM	107.58		0.00	0.00	0.00	0.00
12	Providing 6 mm. thick cement plaster in all floors at all height with cement mortar of mix (1:4) with portland slag cement (PSC) finished smooth to inside rough surface of brick masonry walls after racking out joints including watering and curing rounding of corners etc. complete with cost, conveyance, loading and unloading, royalties and taxes of all materials and cost of all labour, T&P, sundries and scaffolding required for the work etc. with providing grooves as directed by the Engineer in charge.	SQM	28.80		0.00	0.00	0.00	0.00
13	Supplying & Fixing of Manhole cover ( heavy duty ) 450mm x 450mm water tight type including frame cost includes all material,labour, tax,lead tools & plant etc. complete	NO	2.00		0.00	0.00	0.00	0.00
14	Supplying all materials,labours,T&P and constructing 1.22m dia and 2.1m depth soakway pit with precast RCC rings joined loose,gravel backing in the rear of well steining,precast RCC cover slab in cement concrete (1:2:4) using 12mm size hg chips fitted with iron lifting handles including cutting hole in the rings for inlet pipe,earthwork in open well excavation in all kinds of soil and refilling of cavity around the pit & painting the iron works, watering, curing, conveyance of all materials to worksite, payment of royalty, taxes etc all complete as per approved specification and direction of Engineer-in-charge	NO	1.00		0.00	0.00	0.00	0.00
<b>Total - SEPTIC TANK &amp; SOAKPIT (E.5-B)</b>								<b>0.00</b>
<b>TOTAL TRANSIT HOUSE PH WORK (E.5-A+E.5-B)</b>								<b>0.00</b>
<b>TRANSIT HOUSE TOTAL (E.1+E.2+E.3+E.4+E.5)</b>								<b>0.00</b>
<b>TOTAL CIVIL SUBSTATION (A+B+C+D+E)</b>								<b>0.00</b>
<b>CIVIL WORKS TRANSMISSION LINE</b>								
<b>Sl. No.</b>	<b>DESCRIPTION OF ITEMS(SCHEDULE-VIIC-LINE) CIVIL WORK COMPONENT OF THE WORKS CONTRACT OF FOLLOWING EQUIPMENTS (As per Technical Specification)</b>	<b>UNIT</b>	<b>QUANTITY:</b>	<b>BASIC PRICE PER UNIT (Taxable Value) In Rs</b>	<b>CGST @ 9% PER UNIT (INTRA-STATE)</b>	<b>OGST @ 9% PER UNIT (INTRA-STATE)</b>	<b>Total F&amp;I TOTAL PRICE PER UNIT ( In Rs)</b>	<b>TOTAL PRICE FOR THE QUANTITY</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6= {5*9%}</b>	<b>7= {5*9%}</b>	<b>8= {5+6+7}</b>	<b>9= {8*4}</b>
<b>PART B</b>	<b>CIVIL WORKS</b>							
<b>1</b>	<b>SURVEY OF LINE &amp; PREPARATION OF LAND SCHEDULE: Supply of required T&amp;P's, Technical personnel's, labours for conducting</b>							
<b>1.1</b>	Preliminary survey, Detail survey and resurvey (required for avoiding ROW problem) including but not limited to taking of levels, profile plotting, tower spotting ,marking of towers locations at site including showing P&T line, power line, Railway line, river crossing, roads and submission of route map and survey report etc. The P&T lines and railway lines for a minimum distance of 8 kms on either side of alignment shall be clearly indicated.	KM.	8.705		0.00	0.00	0.00	0.00

<b>1.2</b>	Check survey including supply of all labour, T&P as per instruction of Engineer in Charge and as per the approved profile.	KM.	8.705		0.00	0.00	0.00	0.00
<b>1.3</b>	Preparation of land schedule with <b>HAL &amp; SAVIK classification</b> on revenue maps indicating alignment therein duly authenticated by Revenue Inspector & Tahasildar, enumeration of trees with the help of Forest officer and other prominent features required for alignment of the proposed 132 KV line. Final route to be plotted on 1:50000 topo sheet for approval.	KM.	8.705		0.00	0.00	0.00	0.00
<b>1.4</b>	<b>Soil Investigation for preparation/design of Foundation</b>							
<b>1.4.1</b>	Soil Testing in complete shape along with submission of report etc. up to the depth of 7.0 Mtrs.	Per Loc.	5		0.00	0.00	0.00	0.00
<b>1.4.2</b>	Soil Testing in complete shape along with submission of report etc. up to the depth of 15 Mtrs.	Per Loc.	5		0.00	0.00	0.00	0.00
<b>1.4.3</b>	Soil Testing in complete shape along with submission of report etc. upto the depth of 45 mtrs for River bed pile.	Per Loc.	0		0.00	0.00	0.00	0.00
<b>2</b>	<b>EXCAVATION WORKS FOR OPEN CAST/SHALLOW TYPE FOUNDATIONS</b>							
<b>2.1</b>	<b>Excavation for following type of soil and rocks and back filling (back filling shall be done in layers of 500mm sprinkling of water and compaction thereafter and disposed of excess quantity of excavated soil at suitable place after back filling), &amp; if required for filling the foundation, borrowed earth/morrum/sand shall be brought for filling and compaction, including supply of sand, all T&amp;P, labour as required.</b>							
<b>2.1.1</b>	Soft/Loose soil	CUM	800		0.00	0.00	0.00	0.00
<b>2.1.2</b>	Wet soil	CUM	600		0.00	0.00	0.00	0.00
<b>2.1.3</b>	Dense/Compact soil	CUM	1300		0.00	0.00	0.00	0.00
<b>2.1.4</b>	Partial Submerged soil	CUM	200		0.00	0.00	0.00	0.00
<b>2.1.5</b>	Fully submerged soil	CUM	100		0.00	0.00	0.00	0.00
<b>2.1.6</b>	Soft/Disintegrated rock(Not requiring Blasting)	CUM	100		0.00	0.00	0.00	0.00
<b>2.1.7</b>	Hard Rock(Requiring Blasting/Using breaker machinery)	CUM	65		0.00	0.00	0.00	0.00
<b>3</b>	<b>FOUNDATION MATERIALS: Supply of all materials like cement, steel, all coarse aggregates, fine aggregates and making foundations of the required above mentioned type towers as per the direction laid down in the technical specification and the direction of the site- in charge</b>							
<b>3.1</b>	<b>OPEN CAST FOUNDATION</b>							
<b>3.1.1</b>	Design, Engineering, Providing and laying of plain cement concrete (PCC 1:3:6) of grade M10 with approved quality coarse aggregates (Nominal size 12mm to 20mm) , fine aggregates, cement in tower foundation as blind layer inclusive of labour charges for concrete mixing & curing. This includes supply of all labourers, T&P , <b>head loading of all type of Civil materials and dewatering</b> (including Supply of all T&P, Fuel, Lubricant & electricity etc.) as per Technical specification and instruction of Engineer In charge.	CUM	11		0.00	0.00	0.00	0.00

3.1.2	Design, Engineering and laying of reinforced cement concrete (RCC1:1.5:3) of grade M20 for open cast foundation with supply of approved quality coarse aggregates (Nominal size 12mm to 20mm), fine aggregates, cement for tower foundation and inclusive of labour charges for concrete mixing, supply and fixing of form boxes, curing, shoring, shuttering, testing of sample cement concrete cubes as per IS. The height of the coping shall be 350mm above the finished concrete level. The surrounding area shall be clear from materials. Damage of land if any by the contractor shall be repaired before measurement. This includes supply of all labourers, T&P, <b>head loading of all type of Civil materials and dewatering</b> (including Supply of all T&P, Fuel, Lubricant & electricity etc.) as per Technical specification and instruction of Engineer In charge.	CUM	486		0.00	0.00	0.00	0.00
3.1.3	Cutting bending hooking, fixing and binding in poision of MS bars for rainforcement of foundation concrete of towers including supply of wire for binding With supply of steel rod(TATA/RINL/SAIL Make) and <b>head loading</b> . No other make of steel shall be allowed	MT	3		0.00	0.00	0.00	0.00
4	<b>PILE FOUNDATION (UNDER-REAM PILE) BORING &amp; CONCRETE WORKS</b>							
4.1	Boring for under ream cast-in-Situ piling, with Manual Auger method or by using Motor driven Machinery ,including supply of Bentonite required for as per required procedure depending on the length of the bore stabilization bore of required diameter bore holes as per required design length of the bore.							
4.1.1	500MM DIA	Mtrs.	0		0.00	0.00	0.00	0.00
4.2	Supply of all materials like cement, coarse aggregates (Nominal size 12mm to 20mm), fine aggregates and making <b>Under-reamed pile</b> foundations (after pile boring as per required depth, basing on design) as per requirement, including supply of all equipment with labours, <b>head loading of all type of Civil materials</b> , proper curing of the foundations and T&P as per specification in the concrete ratio <b>1:1.5:3</b> (Grade <b>M-20</b> ) and disposal of excess earth as per the direction of Engineer In Charge.	CUM	0		0.00	0.00	0.00	0.00
4.3	Supply of Steel of different size (as per design) with cutting, bending, welding and binding in position of M.S.Rod for reinfocement of foundation concrete of Piles(Under reem Pile) including supply of binding wire With supply of steel rod ( TATA/RINL/SAIL make) and head loading.	MT.	0		0.00	0.00	0.00	0.00
4.4	<b>PILE RISER,CAPPING,PEDESTAL &amp; TIE-BEAM CONCRETE WORKS</b>							
4.4.1	Design, Engineering, Providing and laying of plain cement concrete (PCC 1:3:6) of grade M10 with approved quality coarse aggregates (Nominal size 12mm to 20mm) , fine aggregates, cement in tower foundation as blind layer inclusive of labour charges for concrete mixing, shoring,shuttering & curing. This includes supply of all labourers, T&P <b>head loading of all type of Civil materials and dewatering (including Supply of all T&amp;P, Fuel, Lubricant &amp; electricity etc.)</b> wherever required as per Technical specification and instruction of Engineer In charge.	CUM	0		0.00	0.00	0.00	0.00

4.4.2	Pile riser (if required),capping, tie beams etc, required for foundation of columns, equipment etc. with approved quality coarse aggregates (Nominal size 12mm to 20mm) , fine aggregates including supply of cement, different gradient for concrete ratio 1:1.5:3 (Grade M-20.) including head loading, concrete mixing,shoring,shuttering soils and back filling etc and disposal of excess earth as per the direction of Engineer In charge.	CUM	0		0.00	0.00	0.00	0.00
4.4.3	Supply of Steel of different size (as per design ) with cutting, bending, welding,binding in position of M.S.Rod for reinforcement of foundation concrete of Pile Risers including supply of binding wire With supply of steel rod ( TATA/RINL/SAIL make only) and head loading. <b>No other make steel shall be accepted</b>	MT.	0		0.00	0.00	0.00	0.00
<b>4</b>	<b>Supply of borrowed earth/morrum for back filling for foundation/revertment works</b>							
4.1	Beyond 30 mtr lead	CUM	100		0.00	0.00	0.00	0.00
4.2	beyond 100 mtr lead	CUM	300		0.00	0.00	0.00	0.00
<b>5</b>	<b>SHORING &amp; SHUTTERING-</b> Required in special locations (wet / submerged) of open cast/shallow type foundations with supply of all materials,T&P and Labour.	SQ.MTR.	1000		0.00	0.00	0.00	0.00
<b>6</b>	<b>Welding of Tower Nuts &amp; Bolts</b>							
6.1	Supply of all materials for continuous welding of bolts & nuts (around the <u>bolt threads</u> to the <u>nuts</u> ) up to top of tower without cross arm, including welding rods, welding generator machine (diesel engine operator), application of required zinc rich paints around the welding portion after welding (two coats), fuel, lubricants,T&P and labours and other arrangements etc.	Nos.	35838		0.00	0.00	0.00	0.00
<b>7</b>	<b>REVERTMENT:</b> (including Benching) supply of all materials like cement,Laterite stone( stone masonry) all type of aggregate,labours & T&P for construction of revertment wall as per requirement to protect the tower where felt unsafe and as per approved drawing and the direction of Engineer Incharge. Including head loading of all type of Civil materials and dewatering (including Supply of all T&P, Fuel, Lubricant & electricity etc.).							
7.1	Excavation in all type of soil including rock & back filling including supply of sand with back filling.	CUM	200		0.00	0.00	0.00	0.00
7.2	Lean concrete in the ratio 1:3:6(grade-M10) including supply of sand & chips etc.	CUM	30		0.00	0.00	0.00	0.00
7.3	PCC in the ratio 1:2:4(grade-M15) as above	CUM	10		0.00	0.00	0.00	0.00
7.4	RR masonry work in the ratio 1:5	CUM	200		0.00	0.00	0.00	0.00
<b>8</b>	Approval for PTCC , railway crossing, NHAI, Forest, Water and other Statutory/Govt. bodies clearances (except payment of statutory fees) has to be obtained by submitting the required documents to the concerned department through OPTCL. The documents for above clearances including required drawings etc has to be submitted by the contractor within 3 months of award of contract. Beyond the above period L.D as applicable & the amount shall be deducted as specified in the specification.	Lot	1		0.00	0.00	0.00	0.00
<b>9</b>	<b>RIGHT OF WAY COMPENSATION</b>							
9.1	Per location for foundation and erection of tower	Per Loc	30		0.00	0.00	0.00	0.00
9.2	Per Kilometer for stringing	Per Km.	8.705		0.00	0.00	0.00	0.00
	<b>TOTAL OF (Civil Work) (PART-B) TRANSMISSION LINE</b>							<b>0.00</b>
	<b>TOTAL OF CIVIL WORKS COMPONET OF WORKS CONTRACT PRICE_ SS &amp; TRANSMISSION LINE (A+B)</b>							<b>0.00</b>

**NOTE**

- 1 **Before filling up rate/amount etc. in the schedules bidders are requested to read carefully the instruction given in Vol-I of Bidding Document.**
- 2 **Bidders are required to fill up only blue shaded cells.**
- 3 **Bidders are requested to not leave any column blank. If any column is left blank it shall be considered that amount against those items are included in any other item and the total amount for that item shall be calculated as free of**
- 4 **Basic Price (taxable value) for supply includes Packing & Forwarding, freight & insurance etc. excluding GST with full Input Tax Credit)**

<b>PACKAGE -CPC-55/2022-23</b> <b>132/33 KV S/S AT JHARBANDH &amp; ASSOCIATED 132</b> <b>KV LILO LINE</b> <b>(SUMMARY)</b>		ODISHA POWER TRANSMISSION CORPORATION LIMITED
		NAME OF THE WORK:- Construction of 2 x 20 MVA, 132/33 KV Grid Sub-station with SAS , Jharbandh at Sankri and associated 132 KV LILO line on 132 KV Padampur - Nuapada Line (Approx. Line Length- 8.705 Kms.)
		NOTICE INVITING TENDER-NIT NO. -CPC-55/2022-23 & BID DOCUMENT No.:Sr. G.M- CPC- e-Tender- Jharbandh S/S - 55/2022-23
		SCHEDULE-VIII(SUMMERY OF PRICE SCHEDULES)
Sl. No.	NAME OF THE BIDDER	
SL NO.	DESCRIPTION OF SCHEDULES	PRICE IN INR
<b>1</b>	<b>PART -I SUPPLY COMPONENT OF THE WORKS CONTRACT</b>	
1.1	<b>Schedule VIIA SUB-STATION</b>	
1.1.1	Total Basic Price (Taxable value) exclusive of GST and any other taxes & duties for Schedule VIIA_Substation Supply of Equipment/materials in INR	
1.1.2	Total of GST and any other Taxes and Duties for Schedule VIIA_Substation Supply of Equipment/materials in INR	
	<b>TOTAL of Supply Component- Schedule VIIA _SUB-STATION (Equipment/materials ).</b>	0.00
1.2	<b>Schedule VIIA_TRANSMISSION LINE</b>	
1.2.1	Total Basic Price (Taxable value) exclusive of GST and any other taxes & duties for Schedule VIIA_Transmission line Supply of Equipment/materials in INR	
1.2.2	Total of GST and any other Taxes and Duties for Schedule VIIA_Transmission line Supply of Equipment/materials in INR	
	<b>TOTAL of Supply Component Schedule VIIA _TRANSMISSION LINE (Equipment/materials).</b>	0.00
1.3	<b>Schedule VIIA_MANDATORY SPARES</b>	
1.3.1	Total Basic Price (Taxable value) exclusive of GST and any other taxes & duties for Schedule VIIA_Mandatory Spares Supply of Equipment/materials in INR	
1.3.2	Total of GST and any other Taxes and Duties for Schedule VIIA_Mandatory Supply of Equipment/materials in INR	
	<b>TOTAL of Supply Component Schedule VIIA _MANDATORY SPARES(Equipment/materials).</b>	0.00
1.3	<b>TOTAL of Supply Component- Schedule VIIA _(SS+LINE+MANDATORY SPARES) (Equipment/materials ).</b>	<b>0.00</b>
<b>2.0</b>	<b>PART -II ERECTION COMPONENT OF THE WORKS CONTRACT</b>	
2.1	<b>Schedule VIIB_Sub-station Erection</b>	
2.1.1	Total Basic Price (Taxable value) exclusive of GST and any other taxes and Duties for Schedule VIIB_Sub-station Erection (Electrical Works) Equipment/materials in INR	
2.1.2	Total of GST and any other Taxes and Duties for Schedule VIIB_Substation Erection (Electrical Works) Equipment/materials in INR	
	<b>TOTAL of Schedule VIIB_Substation Erection Charges</b>	0.00
2.2	<b>Schedule VIIB_Line Erection (ELECTRICAL WORKS )</b>	
2.2.1	Total Basic Price (Taxable value) exclusive of GST and any other taxes and Duties for Schedule VIIB_Transmission line Erection (Electrical Works) Equipment/materials in INR	
2.2.2	Total of GST and any other Taxes and Duties for Schedule VIIB_Transmission line (Electrical Works) Equipment/materials in INR	
	<b>TOTAL of Schedule VIIB_Line Erection Charges</b>	0.00
2.3	<b>TOTAL of Erection Component- Schedule VIIB _(SS+LINE) (Equipment/materials ).</b>	<b>0.00</b>

<b>3.0</b>	<b>PART -III CIVIL WORK COMPONENT OF THE WORKS CONTRACT</b>	
3.1	<b>Schedule VIIC_Sub-station Civil Works</b>	
3.1.1	Total Basic Price (Taxable value) exclusive of GST for CIVIL WORKS in Schedule VIIC_Sub-Station Equipment/materials in INR	
3.1.2	Total of GST and anyother Taxes and Duties for CIVIL WORKS in Schedule VIIC_Sub-Station Equipment/materials in INR	
	<b>Total of CIVIL WORKS for Schedule VIIC_Sub-Station</b>	0.00
3.2	<b>Schedule VIIC_Line Civil Works</b>	
3.2.1	Total Basic Price (Taxable value) exclusive of GST for CIVIL WORKS in Schedule VIIC_Transmission line Equipment/materials in INR	
3.2.2	Total of GST and anyother Taxes and Duties for CIVIL WORKS in Schedule VIIC_Transmission line Equipment/materials in INR	
	<b>Total of CIVIL WORKS for Schedule VIIC_Line</b>	0.00
3.3	<b>TOTAL of Schedule VIIC_CIVIL WORKS</b>	<b>0.00</b>
<b>4.0</b>	<b>TOTAL WORKS CONTRACT PRICE IN INR</b>	<b>0.00</b>
<b>5.0</b>	<b>TOTAL DISCOUNT OFFERED ON OWRKS CONTRACT IN INR</b>	
<b>6.0</b>	<b>TOTAL WORKS CONTRACT PRICE AFTER DISCOUNT IN INR</b>	<b>0.00</b>