



**Price Bid for "Electrical Works at 3rd Floor (Phase - II) of Indian Bank, Head Office Main Building,  
No:66, Rajaji Salai, Chennai - 600 001"**

**Price Bid for Electrical works at 3rd Floor (Phase -II) of Indian Bank, Head Office , Main Building , No: 66, Rajaji Salai, Chennai 600 001.**

SI No	DESCRIPTION	UNIT	QTY	SUPPLY		ERECTION	
				RATE*	AMOUNT*	RATE*	AMOUNT*
	<b><u>ABBRIATION : S E T C : Supply, erection, testing &amp; Commissioning.</u></b> <b><u>I.T.C : Installation, Testing &amp; Commissioning.</u></b> <b><u>E.T.C : Erection, Testing &amp; Commissioning</u></b>						
<b>I</b>	<b><u>PART-A DISTRIBUTION BOARDS</u></b>						
	<b><u>NOTE :</u></b>						
a	THE MCB' S IN THE MCB DB SHALL BE OF APPROPRIATE DUTY (CURVE) DEPENDING ON THE CONNECTED LOAD.THE MCB SHALL BE OF 10KA RUPTURING CAPACITY.						
b	THE MCB DB SHALL BE PROVIDED WITH SUITABLE BUS BARS, INTERLINKS, NEUTRAL LINK, EARTH LINKS, EARTH LABELS, DESIGNATION LABELS, COMPART- MENT & INTER-COMPARTMENT SHROUDS ETC. AS PER REGULATORY MEASURES AND THE SIZE OF THE DB'S SHALL BE AS PER THE SITE REQUIREMENT / CONDITION. THE DB'S SHOULD BE INSTALLED EITHER CONCEALED / SURFACE MOUNTED WITH REQUIRED ACCESSORIES AS PER SITE CONDITION.						
c	THE DB'S SPECIFIED HEREIN UNDER SHALL BE PROVIDED WITH SUITABLE SIZE ADOPTER BOX WITH SHROUDED CONNECTOR SAND WITH INTERCONNECT- ING SUITABLE SIZE SOLID LINKS / COPPER WIRES TO TAKE THE AL. AR. CABLE AS SPECIFIED ELSE WHERE IN THE TENDER.						
1	S E T C of double door Industrial pattern SPN MCB DB for 3F Lighting load (with C curve MCB's) comprising of :- a) "1 - 32A 2 Pole MCB with DP RCCB as incomer. 12 - 6/10A SP MCB as outgoing to loads."	Set	1				
2	S E T C of double door Industrial pattern SPN MCB DB for 3F Emergency Lighting load (with C curve MCB's) comprising of :- a) "1 - 32A 2 Pole MCB with DP RCCB as incomer. 08 - 6/10A SP MCB as outgoing to loads."	Set	1				
3	S E T C of compartmental type phase segregated double door industrial pattern MCB DB for Power load (with C curve MCB's) comprising of :- a) "1 - 63A 4 Pole MCB as incomer. 3 - 63A DP 100mA RCCB as phase isolation. 36 - 16A/20A SP MCB as outgoing to loads."	Set	1				

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4	S E T C of compartmental type phase segregated double door industrial pattern MCB DB for 3F UPS Power load (with C curve MCB's) comprising of :- a) "1 - 63A 4 Pole MCB as incomer. 3 - 63A DP MCB as phase isolation . 24 - 16A/20A SP MCB as outgoing to loads ."	Set	1				
5	S E T C of VTPN type double door industrial pattern MCCB/MCB DB for 3F AC & Power load (with C curve MCB's) comprising of :- a) "1 - 125A 4P MCCB 16KA as incomer. 6 - 63A TP MCB as outgoing to loads. The DB to be located in Duct Room of 3rd Floor .	Set	1				
6	Supply & Installation of 100/ 63 Amps -300 ma RCCB with Weather proof enclosure (IP 67) (M/s Sintex).	Set	3				
	<b>PART-A SUB-TOTAL</b>						
II	<b><u>PART-B POINT WIRING</u></b> <b><u>(WITH MODULAR SWITCHES / SOCKETS)</u></b>						
1	Supply and wiring for the following Light, Exhaust Fan, 6A independent socket outlets points, using 2.5 Sqmm multi-strand copper conductor 660 Volts Grade FRLS PVC insulated wires drawn through suitable dia concealed PVC FRLS conduit of thickness not less than 2mm conform to I.S. with all necessary conduit accessories such as junction boxes bends, couplings etc. The wiring for points should include providing 1.5 Sqmm FRLS PVC insulated Green colour copper conductor wire loop earth, Modular switch/ receptacles mounted insuitable size Phospated MS switch box front plate etc. required to complete the point wiring in full as per IS 732 with latest revision whether or not all materials required specifically brought in here. The specified conduit shall be laid in roof slab requirement of site condition. <b><u>The rate shall include embedding pipes, accessories etc, in wall / ceiling including necessary chasing on wall making the surface good etc.The surface conduits Shall be PVC FRLS of 2mm thick of required size. The point rate should include cost of circuit/sub-circuit wiring also (ie) Run of 3R 2.5 Sqmm conductor FRLS PVC insulated wire drawn through surface PVC FRLS conduit with all conduit accessories from distribution board to switch box and, switch box to switch box &amp; switch box to primary points each circuit shall be limited to 800W or 10 points which ever is less.</u></b> The circuit wiring should be independent of point wiring (The point wiring length may be considered 6 Mtrs. Length appx.)						
a)	Single light point controlled by one 6A Modular switch all complete.	Pts.	16				
b)	Two light point controlled by one 6A Modular switch all complete.	Pts.	55				
c)	Three light point controlled by one 6A Modular switch all complete.	Pts.	2				

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d)	Four light point controlled by one 6A Modular switch all complete.	Pts.	2				
2	Supply and wiring for 3R of 2.5 Sqmm multi-strand FRLS copper conductor 660V grade wire (one wire shall be of green colour) in ISI marked suitable size PVC FRLS conduit with all standard accessories all complete as circuit wiring from Lighting DB to Switch Box etc.(Normal & Emergency Lighting Circuits)	Mtrs.	750				
3	Supply and wiring for 3R of 2.5 Sqmm multi-strand FRLS copper conductor 660V grade wire (one wire shall be of green colour) in ISI marked suitable size PVC FRLS conduit with all standard accessories all complete as circuit wiring from AC DB to indoor units etc.	Mtrs.	700				
4	Supply and fixing 6A 1 Way modular switch and 6A 3pin shuttered modular socket outlet with plug. In the light control switch box itself with necessary wiring. (The size of the light control switch box shall be suitable to accommodate the above with necessary front plate) etc. all complete.	Nos	10				
5	Supply and Fixing of 2 nos of 6A 3 Pin Universal sockets controlled by 16 A switch mounted on suitable modular front plate (RAW POWER SOCKETS).	Nos	60				
6	Supply and Fixing of 3 nos of 6A 3 Pin Universal sockets controlled by 16 A switch mounted on suitable modular front plate (UPS SOCKETS)	Nos	70				
7	Supply & fixing of 6A Independent socket outlet point including providing 6A 3 pin Modular shuttered socket outlet controlled by 6A Modular switch.(raw power individual socket).	Nos	15				
8	Supply & fixing 6/16A 5 pin shuttered socket outlet with front plate controled by 16A single way control switch in PVC switch box, accessories as required per site conditions.at locations required. (UPS/RAW power socket) As per site conditions.	Nos	35				
9	Supplying and fixing of following sizes of medium class PVC FRLS conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required - Size-32 mm	meter	100				

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10	Supply & fixing of 6 module floor popup box with the following switch and sockets and accessories etc as required. 3 Nos-6A 5 pin socket 2 Nos - 6A switch 1 No-RJ - 45 data socket 1 No-RJ - 45 Telephone socket 1 No-HDMI socket	Set	1				
11	Supply and wiring for 2R of 4Sqmm +1R of 2.5 Sqmm multi-strand FRLS copper conductor 660V grade wire (one wire shall be of green colour)in Suitable size FRLS PVC conduit with all standard accessories all complete as required for 6/16A power sockets from PDB, AC DB to power circuits etc.	Mtrs.	120				
12	Supply, Laying, Testing and Commisioning of <b>3 Core 2.5sqmm FRLS copper Flexible Cables</b> in existing PVC conduit pipe / Race ways completee with all accessories like junction boxes, rubber bushes etc.as required.( <b>Black Colour - Raw Power Sockets</b> )	Mtrs.	1100				
13	Supply, Laying, Testing and Commisioning of <b>3 Core 2.5sqmm FRLS copper Flexible Cables</b> in existing PVC conduit pipe / Race ways complete with all accessories like junction boxes, rubber bushes etc.as required. ( <b>White Colour - UPS Power Sockets</b> )	Mtrs.	1100				
14	Supplying and fixing of following sizes of medium class PVC FRLS conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. A) 25 mm	Mtrs.	250				
<b>PART-B SUB-TOTAL</b>							
<b>III</b>	<b><u>PART-C CABLES AND TERMINATIONS</u></b>						
1	<b>LT CABLES</b>						
1.1	Supply and laying of following sizes of 1.1KV grade XLPE insulated armoured FRLS grade cable with aluminium conductor multistrand cable with ISI markings of approved make and quality from Existing AHU room Panel to various switch boards / Distribution boards . The cable shall be laid in the cable trays, racks (excluding supply & erection of cable trays / racks) Wherever cable are required to be laid on wall, base bracket fitted onto wall / ceiling and necessary clamps/ harwares etc. all complete and the rate for such clamps, hardwares shall be included in the scope. Before laying the cable approval for the routing and the manner of laying shall be obtained from the Architect / Owner.						
a	3.5C 50 Sqmm Al. Ar.Cable	Mtrs.	60				
b	3.5C 70 Sqmm Al. Ar.Cable-	Mtrs.	60				
c	4C 25 Sqmm Al. Ar.Cable	Mtrs.	200				

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d	4C 16 Sqmm Al. Ar.Cable	Mtrs.	50				
e	4C 10 Sqmm Al. Ar.Cable	Mtrs.	60				
f	3C 10 Sqmm Al. Ar.Cable	Mtrs.	100				
g	3.5C 240 Sqmm Al. Ar.Cable	Mtrs.	100				
h	4C x 16 Sqmm CU Ar.Cable (From Weather proof box to 3 Nos AC Outdoor unit).	Mtrs	30				
i	3 C 4sqmm Cu. Armoured cable for APFC panel CT control cable	Mtrs	45				
2.0	<b>LT CABLE TERMINATION</b>						
2.1	Supply and providing cable end termination for following sizes of 1100V grade XLPE insulated armoured FRLS grade aluminium conductor multi-strand cable with necessary gland sand jointing materials etc. all as per requirement.						
a	3.5C 50 Sqmm Al. Ar.Cable	Nos	2				
b	3.5C 70 Sqmm Al. Ar.Cable	Nos	2				
c	4C 25 Sqmm Al. Ar.Cable	Nos	10				
d	4C 16 Sqmm Al. Ar.Cable	Nos	2				
e	4C 10 Sqmm Al. Ar.Cable	Nos	8				
f	3C 10 Sqmm Al. Ar.Cable	Nos	2				
g	3.5C 240 Sqmm Al. Ar.Cable	Nos	2				
h	4C x 16 Sqmm CU Ar.Cable	Nos	2				
i	3 C 4sqmm Cu. Armoured cable	Nos	2				
3	<b>CABLE TRAY / MARKERS &amp; TERMINAL BOX</b>						
3.1	Design, Fabricating, Supply and Installing varies type MS supports for cable tray to suit to withstand the weight of the number of cables to be laid as per the site requirement. The Supports of cable trays shall be fabricating out of 25mm x 25mm x 6mm angle iron with necessary welded cross supports of size 25mm x 6mm MS flat (or) 10mm threaded rod with tray support from roof as may be required. The rate shall include all supporting brackets, Anchor Fastners including epoxy painting of cable trays.	Kgs	150				
3.2	Supply, erection, testing & commissioning of following sizes of GI ladder type (above 300 mm) / upto 300 perforated type cable trays including Tees, Bends etc. with accessories as required by the site condition. The cable racks shall be suspended from ceiling supported from side walls in columns etc. with adequate size supporting angles / channels with fastners, welding, anchor bolts, nuts etc. The rack shall have suitable cable clamping arrangements etc.						
a	450mm	Mtre	40				
b	150mm	Mtre	40				

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3.3	Cable identification tags made out of round aluminium plates of thickness not less than 3mm and tying with cable with appropriate intravels for cable emanating from individual SSB. The work should be carried out as required by Inspecting Authorities as well as satisfaction of Architect.	Nos.	20				
	<b>PART-C SUB-TOTAL</b>						
<b>IV</b>	<b><u>PART-D EARTH &amp; EARTH CONNECTION</u></b>						
1	Providing, installing, testing and commissioning of Cu. plate earthing station including excavation, back filling, using 600x600x3mm Cu. Plate complete with 2nos 25x3 mm copper Flat Rivetted to the plate along with 50mm dia 3.5mm thickness GI perforated water pipe of 3m long with funnel including construction of inspection chamber, RCC chamber cover, disconnecting link etc. as per specifications and in conformity with IS 3043 (latest).For Earthing 600mm x 3mm copper plate Fitted with GI pipe electrode 50mm dia 3Mts long,3mm thick. The same has been installed in a pit 3.5mts deep and filled with alternate layers of charcoal (75kg) salt (75kg) mixed with river sand . A Brick work Masonry shall be constructed of size 450 x 450 x150mm (inner dimension) and cement plastering at both inside and outside wells. A 3mm thick cast iron plate with frame work placed over the chamber. Earth pit is tested with Fall of Potential method and the value written at the top of chamber. (Make of material for GI pipe - TATA /JSW). Copper - Highest & purest available in market.	Nos.	4				
2	Supply and run of following sizes of copper/ Alu flat from earth electrode to neutral terminals of transformer and other required locations as per statutory requirements and neatly clamped to wall, cable tray with necessary hardwares, PVC FRLS conduits at places required as directed by Architects / Consultants.						
a)	25 x 6mm GI. flat.	Mtrs.	100				
b)	No. 8 SWG copper	Mtrs.	250				
c)	Supply & Laying of 2R x 16 sqmm FRLS Green Colour Earth wire in 25 mm PVC conduit. With all accessories from 3rd Floor Duct room to Phase 2 area.	Mtrs	70				
3	Supplying & providing an earth link made out of copper approximatly 450mm long with 25 x 6mm copper flat with 2 Nos.20mm long 3mm dia brass bolt & nut with 30Acable end sockets connected to the main earth strip running along the vertical earth bus inthe cable tray, 8 Nos.outgoing connection to be tapped from the strip with 20mm long 3mm dia brass bolt & nut and 30A cable end socket to get connected to the 2 Nos.6 Sqmm multi-stranded copper wire.	Nos.	2				

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	<b>PART-D SUB-TOTAL</b>						
V	<b><u>PART-E LUMINARIES</u></b> General Requirement of Light Fittings: LEDS-LOW POWER ONLY: 2-MECADUM-LEVEL- with manufacturers certificate. Driver : 120V to 270V 50HZ with ISI or CE Certificate. (With Surge Protector of 2.5 to3KV. along with separate earthing stud.) Lumen Maintenance Certificate: LM-80 Lumenar test certificate: LM-79 System Lumen efficiency: >120 Lm/W CRI : >80 THD-I : < 10% Power factor:> 0.9 BURNING HOURS : 50000 HOURS-Minimum						
1	Supply, Installation & commissioning of recessed mounting 28 to 30W LED 2x2 down lighter (above 100 lu/w) with necessary ,driver, interconnecting wires & fixing hardwares etc , (6500K) RC380B LED36S-6500 FULL GLOW TYPE	Nos.	30				
2	Supply, Installation & commissioning of recessed mounting 18W LED down lighter with necessary ,driver, interconnecting wires & fixing hardwares etc , (4000K) PHILIPS Dura Slim 18w, 1890 Lumens, Aluminium body 50K life hours.	Nos.	20				
3	Supply, Installation & commissioning of recessed mounting 9W LED spot light with necessary ,driver, interconnecting wires & fixing hardwares etc , (4000K)	Nos.	2				
4	Supply, Installation & Commissioning of LED STRIP lights including driver, mounting arrangement, hardwares, etc. The wattge shall not exceed 9W per meter ( one driver per five meter )	Mtr	10				
5	Supply, Installation Testing & commissioning of PIR Sensors (motion sensor 5 meter coverage area) for the light points to be fitted on to ceiling as per site requirement with necessary frame, diffuser,driver, interconnecting wires & fixing hardwares etc.	Nos.	2				
6	Supply, Installation & commissioning of recessed mounting 22W LED down lighter with necessary ,driver, interconnecting wires & fixing hardwares etc , (6500K)PHILIPS Dura Slim 22w, 2310 Lumens, Aluminium body 50K life hours.	Nos.	120				
7	Supply, Installation & commissioning of suspended (500mm) 1200mm length 36 to 40W LED Tube light fitting to be fitted on to ceiling as per site requirement with necessary frame ,diffuser,driver, interconnecting wires & fixing hardwares etc. , (6500K)	Nos.	2				
	<b>PART-E SUB-TOTAL</b>						
VI	<b><u>PART-F LOW VOLTAGE SYSTEM</u></b>						

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1	<b><u>TELEPHONE &amp; DATA</u></b> <b>NOTE:</b> 1.Qtys are tentative subjected to change based on clients requirement.						
1.1	Supplying and fixing RJ 45 modular type data socket outlet and modular plate in cadmium / GI plated MS box including making connections etc as required. (Including termination/crimping at both the sides )	Each	130				
1.2	Supply and drawing of CAT6 cable in existing surface in floor Raceway complete as required. (Including termination/crimping at both the sides )	Mtrs.	6500				
1.3	Supply and fixing of CAT 6 RJ45 Jack complete as required for data socket. (Including termination/crimping at both the sides )	Each	260				
1.4	Supplying and fixing RJ 45 modular type telephone socket outlet and modular plate in cadmium / GI plated MS box including making connections etc as required. (Including termination/crimping at both the sides )	Each	60				
1.5	Supply and fixing of CAT 6 RJ45 Jack complete as required for telephone socket. (Including termination/crimping at both the sides )	Each	120				
1.6	Supplying and fixing modular type TV socket outlet and modular plate in cadmium / GI plated MS box including making connections etc as required.	Each	2				
2	<b><u>FLOOR RACE WAYS / CONDUITS</u></b>						
2.1	Supply, laying and installation of following trapezoidal PVC floor ducting supplied in three meters per length including trunk connector, clamp, vertical/ horizontal bend etc in screed floor or on wall in line with EN 50085 including chasing and refilling the trench as per the route shown in the drawing and approved by consultant/ client at site including clamping & closing the open ends temporarily by suitable end covers against entry of dust or any foreign materials. Installation rates of PVC trunk should be inclusive of necessary hardware and arrangement required for fixing of trunk with duct connector and fastening clamp. This activity also includes Duct connector, Fastening Clamp alongwith associated accessories. (Including Floor Cutting & after laying side and top pacing with cement concrete 1:5 ratio of the Existing floor the floor level should be same from original level) <b>Make : OBO , Legrand.</b>						
a	90 mm wide x 35 mm deep trapezoidal UPVC duct with 2 mm thick	Mtrs	265				
b	60 mm wide x 25 mm deep trapezoidal UPVC duct with 2 mm thick	Mtrs	200				
c	SITC of UPVC Duct for Cable Management inside Electrical Room of Phase 2 , Dimensions-100 mm x50 mm- Cable Management - Make MK, Legrand	Mtrs	20				

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2.2	<p>Supply and installation of following floor junction box height adjustable from 60 to 75 mm with GI Powder coated trap and frame fitted with 2+3 mm Trap + GI load plate in line with EN 50085 suitable for 1.5 KN loading class with 10 mm floor covering protection flange complete with UPVC duct entries on all four sides and necessary recess for accomodating floor finishing material. The floor junction Trap, Frame, load plate and protection flange needs to be powder coated colour matched to the final floor finishing as per architect's choice. <b>Make - OBO , Legrand</b></p> <p>The base floor boxes need to be supplied with height adjusting pillars in four corners for the first fix installation. GI hardware to make the installation complete, like supply of necessary screed anchors and grouting etc. including breaking walls, floors, etc. for structures as required including supply of all GI hardware materials, all labour and materials complete as per approved drawings, specifications of this tender and directions of Engineer-in-charge including minor civil work. ( <b>Make : OBO, Legrand</b> )</p>						
a	358 mm x 358 mm GI under floor box suitable for three run of 90 x 35 mm UPVC Duct entries on all side complete with screeding cover and 358 mm x 358 mm square GI + Powder coated inspection cover complete with load plate colour matched to the floor finish with the RAL colour code confirmed by the architect. The floor boxes need to be supplied with 10 mm floor covering protection flange all around the trap and frame. ( <b>Make : OBO, Legrand</b> )	No	24				
b	260 mm x 260 mm GI under floor box suitable for two runs of 90 x 35 mm UPVC Duct entries on all side complete with screeding cover and 266 mm x 266 mm square GI + Powder coated inspection cover complete with load plate colour matched to the floor finish with the RAL colour code confirmed by the architect. The floor boxes need to be supplied with 10 mm floor covering protection flange all around the trap and frame. ( <b>Make : OBO, Legrand</b> )	No	24				
c	185 mm x 185 mm GI under floor box suitable for single run of 90 x 35 mm UPVC Duct entries on all side complete with screeding cover and 186 mm x 186 mm square GI + Powder coated inspection cover complete with load plate colour matched to the floor finish with the RAL colour code confirmed by the architect. The floor boxes need to be supplied with 10 mm floor covering protection flange all around the trap and frame. ( <b>Make : OBO, Legrand</b> )	No	50				
d	300 mm x 300 mm x50 mm GI ( Vertical Access Box at Electrical Phase 2 room below DB ) for PVC ducts entry 35 mm and 25 mm heights. ( <b>Make : OBO, Legrand</b> )	No	4				

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2.3	Supply and fixing of GI junction boxes of minimum dimensions specified below having knock-outs on all four sides suitable for raceways, made of 2 mm thickness for GI base cover with leveling screws on all the four corners to withstand heavy load. The knockouts shall be removed at site as per requirement. This item to be executed only with the prior approval of the Bank/ Architect. (Height of the Junction box as per site Conditions apx 150 mm to 400mm)						
a	200 x 200 mm	Nos.	40				
b	300 x 300 mm	Nos.	20				
c	400 x 400 mm	Nos.	20				
2.4	Supply and installation of SS 304 Lid of minimum dimensions mentioned below with 12mm thick outer frame, 3 mm thick SS top cover with chain lock, SS angle legs of suitable length for grouting and floor alignment and corner support plates for top cover stability, mounted on GI junction box. This item to be executed only with the prior approval of the Bank/ Architect.						
a	225 x 225 mm	Nos.	40				
b	325 x 325 mm	Nos.	20				
c	425 x 425 mm	Nos.	20				
<b>PART-F SUB-TOTAL</b>							
<b>VII</b>	<b>PART -G KRONE &amp; SWITCHES SYSTEM</b>						
1	Supply , Installation , Testing & Commissioning of 100 pair Armoured Jelly Filled Telephone cable (with Copper guage thickness of 0.5mm) with necessary clamping /end termination of the cables in the distribution boxes by using cleaning agent with necessary fixtures for dressing the cables (From 1st Floor EPABX Hub to 3rd floor services room ) with clamping and all required accessories (including termination at both sides of the krone boxes with allied accessories). <b>Make: FINOLEX</b>	Mtr	100				
2	Supply , Installation , Testing & Commissioning of fully loaded Krone box for 100 x 2 connections and accessories. ( One Krone (100 no.s) for Incoming and another Krone outgoing (100 nos) for outgoing including jumper connection/termination connections and all accessories including termination of CAT6 cable.etc. (at first floor)	Nos	1				

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3	Supply , Installation , Testing & Commissioning of fully loaded Krone box for 100 x 2 connections and accessories. ( One Krone (100 no.s) for Incoming and another Krone outgoing (100 nos) for outgoing including jumper connection/termination connections and all accessories including termination of CAT6 cable.etc. (at 3rd Floor)	Nos	1				
3	Supply , Installation , Testing & Commissioning of Analog Telephone with caller id, Speaker and all accessories (Make - Beutel, Panasonic)	Nos	50				
4	Supply , Installation , Testing & Commissioning of Digital Phone with all accessories (Make - Matrix)	Nos	10				
5	Supply, Installation, Testing & Commissioning of Rack 27U - 600W-1000D Floor Mount Network Rack with Accessories :: (1) 90 CFM Fan-2 Nos. (2) 1U Cable Manager-6 Nos. (3) 10 Socket 6/16A PDU-2 Nos. (4) Monitor 475D Tray -1 Nos. (5) Mounting Hardware packet of 20Nos with all accessories.	Nos	1				
6	Supply , Installation , Testing & Commissioning of Cat 6 24 Port Loaded Patch Panel with all accessories	Nos	8				
7	Supply , Installation , Testing & Commissioning of Cat 6 patch cable - 1 Metre with all accessories	Nos	135				
8	Supply , Installation , Testing & Commissioning of Cat 6 patch cable - 2 Metres with all accessories	Nos	135				
<b>Sub Total -G</b>							
VIII	<b>PART -H APFCR PANEL</b>						
1	<b>APFCR Panel</b>						
	Supply, erection, testing & commissioning of floor mounting dust & vermin proof cubicle pattern noncompartmentalised <b>APFCR Panel</b> fabricated out of 14 /16 SWG CRCA sheet comprising of the following :-						
	<b>INCOMER:</b>						
	1 No.- 400A TP & N 25KA MCCB with manual closing mechanism with Rotary handle, fitted with over current and short circuit protection and with 433V shunt trip releases Aux switch of 1 NO + 1 N/C for contacts multiplication etc. as incomer and provided with an instrument chamber having						
	1 - 12 stage APFCR Relay.						
	1 - Auto manual selector switch.						
	1 - Digital type flush mounting meter with inbuilt selector to indicate the following parameters suitable for operation with 5A CT secondary.						
	Current, Voltage, Frequency						

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	1 Set. - 3 Nos. R, Y, B indicating lamp to indicate supply position.						
	1 Set. - 2 Nos. Red & Green indicating lamp to indicate ON-OFF position of breaker.						
	1 Set. - Amber Breaker trip due to fault indication						
	1Set - Potential protection HRC fuses/MCB of suitable rating for indicating lamp, meter, control circuit etc.						
	<b><u>BUSBAR:</u></b>						
	1 - 400A TP & N Alu. bus bar having a current density of 0.7A per Sqmm and with adequate number of FRP/SMC bus supports at suitable interval as per IS. The busbar shall be PVC sleeved with heat shrukable colour coded PVC sleeves with the exception of joint.						
	<b><u>OUTGOINGS:</u></b>						
	3 Nos. - Capacitor compartment each with 100A TP MCCB 25KA fitted with FD Kit, and suitably rated having specific duty contactor with accessories etc. all complete for control of 25 KVAR capacitors. ON - OFF push buttons, ON -OFF indicating lamp, provided with a 25 KVar capacitor bank with copper reactors, control wiring from the APFC relay all complete for proper operation of bringing in or out of the capacitors connected to maintain the Power Factor as stipulated by the supply authorities. As per details given.						
	3 Nos. - Capacitor compartment each with 63A TP 10KA MCB with FD kit, an auxilary switch 1 NO + 1 NC, and suitably rated and having specific duty contactor with necessary bi-metal relays etc. all complete for control of 15 KVAR capacitors. ON - OFF push buttons, ON -OFF indicating lamp, provided with a 15 KVar capacitor bank with						

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	reactors, control wiring from the APFC relay all complete for proper operation of bringing in or out of the capacitors connected to maintain the Power Factor as stipulated by the supply authorities. As per details given.						
	3 Nos. - Capacitor compartment each with 63A TP 10KA MCB with FD kit, an auxiliary switch 1 NO + 1 NC, and suitably rated and having specific duty contactor with necessary bi-metal relays etc. all complete for control of 10 KVAR capacitors. ON - OFF push buttons, ON -OFF indicating lamp, provided with a 10 KVar capacitor bank with reactors, control wiring from the APFC relay all complete for proper operation of bringing in or out of the capacitors connected to maintain the Power Factor as stipulated by the supply authorities. As per details given.						
	The instrument chamber meter /instruments shall be wired with 2.5 Sqmm for CT's & 1.5 Sqmm for other circuits multi-strand copper conductor wire with double sleeving & with appropriate colour code and the terminal ferruled and connected with suitable lugs.						
	The board shall be provided with necessary warning, feeder designation label as per IS standards and as per site requirement and cater to General requirement of switch board specification given in the tender. The cost include providing CT coil (rating as per site condition & load ) in Main MV panel board with programming both APFC panel with Synchronization.						
	The above panel shall be fabricated as per IS and complete with specified bus bar, bus supports, interconnections from bus to MCCB, MCCB to capacitor banks duly taped or sleeved wirings providing 2 Nos.earth bus with 25 x 6mm Alu. flat, door earthing with braided copper etc. all complte as per IS as acceptable to Architects in conformity with the Local Electrical Inspectorate whether or not all items has brought in this. The board shall be provided with noncompartmental and intercompartment shrouds, terminal extensions for receiving cable, shrouds for terminals etc. The aggregated capacity of each of the bank shall be of 50 KVAR. The board shall be finished with powder coated paint of approved shade after duly treated for rust prevention and applying 2 coats of metal primer. The board shall be provided with necessary warning, feeder designation labels as per IS and as per site requirement and cater to General requirement of switch board specification given in the tender.						
		Set.	1				

SI No	DESCRIPTION	UNIT	QTY	SUPPLY		ERECTION	
				RATE*	AMOUNT*	RATE*	AMOUNT*
2	Supply, Installation, Testing and commissioning of 400Amps, 3pole+N, 50KA of TM release MCCB with rotary handle, Spreader terminals. The cost include Removing the existing MCCB and fixing new MCCB with require alteration and suitable size new bus bar modification (for calculating size of bus bar Alu. bus bar having a current density of 0.7A per Sqmm to be taken for consieration ), new door replacing etc. with suitable cable adaptor boxes to receive outgoing cables with proper extended bus bar and cable supports the scope shall include the necessary mounting / stand alone hardweres. <b>Make: Lauritz Knudsen (d sine)</b>	Set	1				
	<b>*Exclusive of GST</b>						
	<b>Sub Total -H</b>						
	<b>Total (A+B+C+D+E+F+G+H)</b>						
	<b>GRAND TOTAL (SUPPLY + ERECTION) (EXCLUSIVE OF GST)</b>						
	<b>APPROVED MAKE OF MATERIALS</b>						
S. NO	ITEM	MAKE OF MATERIAL					
1	MCB, MCCB, RCCB	LEGRAND, Lauritz Knudsen (LARSEN TUBRO), HAGER					
2	DISTRIBUTION BOARDS	LEGRAND, Lauritz Knudsen ( LARSEN TUBRO), HAGER					
3	UG CABLES/TELEPHONE CABLES	POLYCAB, RR CABLE, FINOLEX, HAVELLS					
4	COPPER WIRES	POLYCAB, RR CABLE, FINOLEX, HAVELLS					
5	MS CONDUIT	BEC, BHARATH, AKG, BIMCO					
6	PVC CONDUIT	AVON PLAST, ANCHOR, PRECISION					
7	ACCESSORIES FOR PVC CONDUIT	AVON PLAST, ANCHOR, PRECISION					
8	SWITCHES / SOCKETS & POP UP BOX	LEGRAND - MYRIUS, HONEYWELL MK - BLENZE PLUS					
9	FITTINGS	PHILIPS,JAQUAR, OSRAM.					
10	FANS	CROMPTON, USHA, ORIENT					
11	CABLE TRAY (GI)	CABLOFOIL, PROFAB, OBO,MK					
12	LEDS CHIP	PHILIPS LUMILEDS, JAQUAR, OSRAM					
13	UPVC RACE WAY & JUNCTION BOX	OBO, LEGRAND					
14	CABLE LUGS, GLANDS	COMET, SIMENS, DOWELLS, HEX					
15	NETWORK CABLE WITH ACCESSORIES	D LINK, MOLEX, DIGILINK, AMP					
16	SOCKETS WITH ACCESSORIES (DATA, TELEPHONE)	D LINK, MOLEX, DIGILINK, AMP					
17	KRONE BOX WITH CONNECTORS	KRONE					
18	NETWORK RACK	NETRACK, VALRACK					
19	PATCH PANEL, PATCH CORD	D LINK, MOLEX, DIGILINK, AMP, COMSCOPE.					
20	TELEPHONE INSTRUMENT (ANALOG)	BEETEL, PANASONIC					
21	TELEPHONE INSTRUMENT (DIGITAL)	MATRIX					
22	ANY OTHER MATERIALS	SUBJECTED TO APPROVAL FROM CONSULTANT / BANK					