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BOQ / ESTIMATE FOR ELECTRICAL WORKS IN BRANCH PREMISES AT:

PUNE ASSET RECOVERY MANAGEMENT BRANCH (A.R.M.); DIST. PUNE

A BUY-BACK OF OLD ITEMS					
	Disposing all old electrical items like Distribution Boards, Panel Boards, Switchgears, Light fittings, fans etc. as permitted by the BM and as per project plan. (Minimum cost of items - Rs. 5,000.00).	Job	-1.00		
	The item includes dismantalling & re-arranging the existing items till the end of the project as per the project plan.				
	NOTE: Tenders with buyback amount quoted less than our prescribed minimum cost of Items shall be rejected				
B ELECTRICAL WORKS					
1.1.	BUS-BAR: SIT of 100A 415V 4 strip Step Type Bus Bar chamber box complete with enclosure made out of powder coated CRCA having gland plates with conduit knockouts, earthing terminals. The enclosure must have proper insulation and locking arrangement.	Set	1.00		
1.2.	MAIN PANELS / DBs:				
	SITC sheet metal fabricated & powder coated Double Door Type MCB Distribution Boards (surface/flush mounted). DB's shall have MCB/MCCB as incomer, RCCB as sub-incomer & SP/DP/TP MCB as outgoing, complete with Per Phase Isolation. All MCBs of B/C characteristics (B type for Light and Fan load and C type for rest of the load) and 10 KA breaking capacity. The ELCB's, RCCB's, RCBO's should be of 100mA sensitivity. The DB shall have appropriate no. of top & bottom knock outs for outgoing circuits & shall be complete with necessary bus bars, interconnecting terminals & earth studs. All terminations in DB shall be complete with feruling, dressing with lugs & all circuits shall be properly labeled with PVC strip (sticker type) having identification as per the final approval of the Bank / Architect / Consultant.				
1.2.1.	VTPN DB1 - SITC Lighting, AC & Raw Power Main DB (Non-Essential Load)				
1.2.1.i)	4 way VTPN - MCCB DB,	Nos.	1.00		
1.2.1.ii)	415V 63Amp. TPN, MCCB (16 KA breaking capacity)	Nos.	1.00		
1.2.1.iii)	20/25/32 A - SP MCB outgoing (For AC Points & Raw power points) (20A SP MCB for 1.0 Ton AC, 25A SP MCB for 1.5 Ton AC & 32A SP MCB for 2.0 Ton AC)	Nos.	6.00		
1.2.1.iv)	25 A - TP MCB outgoing (L,F & Raw Power DB)	Nos.	1.00		
1.2.1.v)	Blanking plates	Nos.	9.00		
1.2.2.	VTPN DB2 - SITC UPS, ATM & GSB Main DB (Essential Load)				
1.2.2.i)	4 way VTPN - MCCB DB,	Nos.	1.00		
1.2.2.ii)	415V 63Amp. TPN, MCCB (16 KA breaking capacity)	Nos.	1.00		
1.2.2.iii)	25/32 A - SP MCB outgoing (Branch UPS Input, Inverter Input, ATM UPS Input, ATM Lighting & AC DB, Glow Sign Board, Spare Feeders)	Nos.	6.00		
1.2.2.iv)	Blanking plates	Nos.	6.00		
2	DISTRIBUTION BOARDS				
	SITC sheet metal fabricated & powder coated Double Door Type MCB Distribution Boards (surface/flush mounted). DB's shall have MCB/MCCB as incomer, RCCB as sub-incomer & SP/DP/TP MCB as outgoing, complete with Per Phase Isolation. All MCBs of B/C characteristics (B type for Light and Fan load and C type for rest of the load) and 10 KA breaking capacity. The ELCB's, RCCB's, RCBO's should be of 100mA sensitivity. The DB shall have appropriate no. of top & bottom knock outs for outgoing circuits & shall be complete with necessary bus bars, interconnecting terminals & earth studs. All terminations in DB shall be complete with feruling, dressing with lugs & all circuits shall be properly labeled with PVC strip (sticker type) having identification as per the final approval of the Bank / Architect / Consultant.				
2.a	LIGHTING DB1				
i)	6 way TPN - MCB DB,	Nos.	1.00		
ii)	25 A - FP MCB, as incomer	Nos.	1.00		
iii)	25 A - DP 30mA RCCB, as sub-incomer	Nos.	3.00		
iv)	6/10 A - SP MCB outgoing (6A for Light & Points, 10 A for Sockets)	Nos.	12.00		

2.c	SITC Branch UPS Sub Main DB				
i)	6 way SPN - MCB DB,	Nos.	1.00		
ii)	40 A - DP MCB as incomer	Nos.	1.00		
iii)	40 A - DP 100mA RCCB, as sub-incomer	Nos.	1.00		
iv)	20/32 A - SP MCB outgoing, 1 for UPS Output DB 1 & 1 for UPS Output DB 2	Nos.	2.00		
2.d	SITC Branch UPS Output DB 1 (Essential Load)				
i)	8 way SPN - MCB DB,	Nos.	1.00		
ii)	32 A - DP MCB as incomer	Nos.	1.00		
iii)	6/10/16 A - SP MCB outgoing, 1 Point for CCTV, 1 Point for Data Network rack, 1 Point for Fire Alarm System, 1 Point for Security alarm system & 1 No. Spare Feeder	Nos.	5.00		
vi)	Blanking plates	Nos.	1.00		
2.e	SITC Branch UPS Output DB 2 (Non - Essential Load)				
i)	12 way SPN - MCB DB,	Nos.	1.00		
ii)	32 A - DP MCB as incomer	Nos.	1.00		
iii)	6/10/16 A - SP MCB outgoing, for Computer Power Points on Tables, Counters and Work Stations.	Nos.	10.00		
vi)	Blanking plates	Nos.	2.00		
2.f	SITC INVERTER Lighting DB				
i)	12 way SPN - MCB DB,	Nos.	1.00		
ii)	25 A - DP MCB as incomer	Nos.	1.00		
iii)	6/10A - SP MCB outgoing	Nos.	8.00		
iv)	Blanking plates	Nos.	2.00		
3	MCB BOXES				
3.a.	SITC 2 way - MCB with Box, <u>for switching OFF Non-Essential Branch UPS output & Inverter Lighting Output (TO BE LOCATED NEAR THE ENTRANCE OF BRANCH NEXT TO VTPN DBs)</u>				
i)	Sheet steel Enclosure Box for DP MCB	Nos.	2.00		
ii)	32/20 A - DP MCB	Nos.	2.00		
3.b.	SITC 2 way - MCB with Box, for Branch UPS Input & Output, for Inverter input & output				
i)	Sheet steel Enclosure Box for DP MCB	Nos.	4.00		
ii)	32/25/20 A - DP MCB	Nos.	4.00		
3.c.	SITC 4 way - MCB with Box, for Glow Sign Board & Outside Lighting				
i)	Sheet steel Enclosure Box 6Way SP MC Box	Nos.	1.00		
ii)	25 A - DP MCB	Nos.	1.00		
iii)	10/16A - SP MCB outgoing	Nos.	2.00		
4	AC POINTS - To be drawn from VTPN DB1 (S.No. 1.2.1)				
4.a	Supplying & Installing 20 A Power Socket points complete with MS concealed box, 20A Modular Socket, and 20/25A SPMCB with necessary screws, nylon plug, Saddles, hardware etc. The point cost must be inclusive of 2x4.0 Sq.mm. + 1x2.5 Sq. mm. PVC insulated FRLS Multistrand copper Conductor wires concealed inside 25mm/20 mm PVC conduit. (For High Wall Split AC 1.0T & 1.5T Units) (One in CM Cabin & 1 in call center)	Nos.	2.00		
	NOTE: Provision should be made in the point wiring for insertion and installation of AC stabilizers with proper terminations using lugs and sealants. The wiring from AC DB to stabilizers and from stabilizers to the actual end point must be concealed in PVC Conduits of appropriate dia.				
4.b	Supplying & laying circuit wiring for 20 A Power Socket points (without any socket / switch (directly controlled by a Individual SP MCBs in AC DB) with necessary screws, nylon plug, saddles, hardware etc. The point cost must be inclusive of 2x4.0 Sq.mm. + 1x2.5 Sq. mm. PVC insulated FRLS Multistrand copper Conductor wires concealed inside 25mm/20 mm PVC conduit. (For Cassette AC 1.0T / 1.5T Units)	Nos.	2.00		
	The point must include termination of wiring upto the indoor or outdoor unit of the air conditioners, as required, inside MS conduit fixed rigidly on walls complete with clamps, screws etc. (for portion of wiring outside the premises in case point is to be provided up till outdoor unit) without any extra cost.				
	NOTE: Provision should be made in the point wiring for insertion and installation of AC stabilizers with proper terminations using lugs and sealants. The wiring from AC DB to stabilizers and from stabilizers to the actual end point must be concealed in PVC Conduits of appropriate dia.				

4.c	Supplying & laying circuit wiring for 20 A Power Socket points (without any socket / switch <i>(directly controlled by a Individual SP MCBs in AC DB)</i> with necessary screws, nylon plug, saddles, hardware etc. The point cost must be inclusive of 2x6.0 Sq.mm. + 1x4.0 Sq. mm. PVC insulated FRLS Multistrand copper Conductor wires concealed inside 25mm/20 mm PVC conduit. (For Cassette AC 2.0T Units)	Nos.	2.00		
	The point must include termination of wiring upto the indoor or outdoor unit of the air conditioners, as required, inside MS conduit fixed rigidly on walls complete with clamps, screws etc. (for portion of wiring outside the premises in case point is to be provided up till outdoor unit) without any extra cost.				
	NOTE: Provision should be made in the point wiring for insertion and installation of AC stabilizers with proper terminations using lugs and sealants. The wiring from AC DB to stabilizers and from stabilizers to the actual end point must be concealed in PVC Conduits of appropriate dia.				
6	CABLES & TERMINATIONS				
	Supply and Laying of following LT cables confirming to IS 1554 (part 1) with necessary M.S. clamps. All such cables shall be provided with temporary labeling at every 20 mtr. & then finally with metal identification tags showing the size & the location from/to the specific panel/DB; at both the ends. The rate is inclusive of termination charges				
6.1	Aluminium Armoured Cables				
	4 C x 50 Sq.mm Aluminium AYFY Armoured Cables, 1. From Energy Meter to 100A Bus Bar (S.No. 1.1.) 3. From Bus-Bar (S.No. 1.1.) to VTPN DB1 (S.No. 1.2.1.) 4. From Bus-Bar (S.No. 1.1.) to VTPN DB2 (S.No. 1.2.2.)	Rmt	35.00		
6.2	Copper Flexible Cables				
6.2.a.	2C x 4 Sq.mm. Copper Conductor Flexible Cable + 2.5 Sq. mm. PVC Insulated Multistrand Copper Conductor wire for earth, 1. From VTPN DB2 (S.No. 1.3.2.) to Inverter Input MCB Box (S.No. 3.b.) 2. From Inverter Input MCB Box (S.No. 3.c.) to inverter 3. From Inverter to inverter output MC Box (S.No. 3.b.) 4. From VTPN DB2 (S.No. 1.3.2.) to GSB MCB Box (S.No. 3.c) 5. From GSB MCB Box (S.No. 3.c) to Glow Sign Board 6. From Branch UPS Sub Main DB SP MCB1 & Neutral (S.No. 2.c.iv) to Input side of DP MB Incomer of Branch UPS Output DBs 1 (S.No. 2.d.ii)	Rmt	90.00		
6.2.b.	2C x 6 Sq.mm. Copper Conductor Flexible Cable + 4.0 Sq. mm. PVC Insulated Multistrand Copper Conductor wire for earth, 1. From VTPN DB2 (S.No. 1.3.2.) to Branch UPS Input MCB Box (S.No. 3.b.) 2. From Branch UPS MCB Box (S.No. 3.b.) to Branch UPS 3. From Branch UPS to Branch UPS Output MCB Box (S.No. 3.b.) 4. From Branch UPS Output MCB Box SPMCB1 (S.No. 3.b.) to Branch UPS Sub Main DB (S.No. 2.c.) 5. From Branch UPS Sub Main DB SPMCB2 & neutral (S.No. 2.c.iv) to MCB Box (S.No. 3.a) at entrance 6. From MCB Box at entrance (S.No.3.a) to Input side of DP MB Incomer of Branch UPS Output DB 2 (S.No. 2.e.ii)	Rmt	85.00		
6.2.c.	4C x 4 Sq.mm. Copper Conductor Flexible Cable + 2.5 Sq. mm. PVC Insulated Multistrand Copper Conductor wire for earth, 1. From VTPN DB1 to Lighting DB 1 (S.No. 2.a)	Rmt	20.00		
6.2.f.	3C x 2.5 Sq.mm. Copper Conductor flexible cable, 1. From inverter output MCB Box (S.No. 3.b.) to MCB Box (S.No. 3.a) at entrance 2. From MCB Box (S.No. 3.a) at entrance to Input side of DP MCB Incomer of inverter lighting DB (S.No. 2.f.ii)	Rmt	50.00		
7	POINT WIRINGS				
	Complete job shall include cutting chiseling in walls, floor and making good of all chases / cuts etc. with combination of cement-mortar, including painting with type and shade of existing wall. The work shall be completed to the satisfaction of Bank. NO CABLE / WIRE / CONDUIT SHALL BE VISIBLE IN THE BRANCH HALL / CUSTOMER LOBBY / STAFF WORKING AREA. (No separte measurements for circuit wiring & PVC Conduits)				
	Complete job shall include cutting chiseling in walls, floor and making good of all chases / cuts etc. with combination of cement-mortar, including painting with type and shade of existing wall. The work shall be completed to the satisfaction of Bank. NO CABLE / WIRE / CONDUIT SHALL BE VISIBLE IN THE BRANCH HALL / CUSTOMER LOBBY / STAFF WORKING AREA.				
7.1.	UPS Points				
	THE POINTS FOR ESSENTIAL LOADS AND NON-ESSENTIAL LOADS SHOULD BE POWERED THROUGH SEPARATE D.B.s AS MENTIONED BELOW. NO MIXING SHOULD BE DONE				

7.1.a.	Non-Essential UPS Power points <i>(From 12 Way SPN DB) - PRIMARY POINTS</i>	No	10.00		
Note	For Computer Points in Counters and Tables and for points for Printers etc., to be powered through Branch UPS Output DB 2 (S.No. 2.e)				
	Supplying & Installing Primary UPS or Stabilized Power points on workstations / tables for computers using using 2x2.5 Sq.mm. + 1x1.5 Sq. mm. PVC insulated multistandarded FRLS Grade flexible copper wires through 25mm size MMS Grade PVC conduites, laid on surface above false ceiling and taken upto table top using 25/20 mm size MMS Grade PVC rigid or flexible conduits run within wooden or metal partitions.				
	Each point consisting of 2 Nos of 6A, 5 Pin Modular sockets and 1 No. of 16A, 6 pin socket controlled by 1 No 20A Modular switch & Indicator lamp, wired together forming one point. Earth wire to be of Green colour only. Switch should be above table top & sockets with indicator should be below table top.				
7.1.a.ii	Non-Essential UPS Power points <i>(From 12 Way SPN DB) - SECONDARY POINTS (Looped from the primary point Sl. No. 7.1.a.)</i>	No	4.00		
	2 secondary points inside the call center & 2 in branch hall				
	Supplying & Installing Primary UPS or Stabilized Power points on workstations / tables for computers using using 2x2.5 Sq.mm. + 1x1.5 Sq. mm. PVC insulated multistandarded FRLS Grade flexible copper wires through 25mm size MMS Grade PVC conduites, laid on surface above false ceiling and taken upto table top using 25/20 mm size MMS Grade PVC rigid or flexible conduits run within wooden or metal partitions.				
	Each point consisting of 2 Nos of 6A, 5 Pin Modular sockets and 1 No. of 16A, 6 pin socket controlled by 1 No 20A Modular switch & Indicator lamp, wired together forming one point. Earth wire to be of Green colour only. Switch should be above table top & sockets with indicator should be below table top.				
7.1.b.	Essential UPS Power points <i>(From 8 Way SPN DB)</i>	No	5.00		
Note	For CCTV System, Fire Alarm System, Burglar Alarm System, Networking Rack, to be powered through Branch UPS Output DB 1 (S.No. 2.d)				
Note	For ATM UPS Output, to be powered through ATM UPS Output DB (S.No. 2.g)				
	Supplying & Installing Primary UPS or Stabilized Power points on workstations / tables for computers using using 2x2.5 Sq.mm. + 1x1.5 Sq. mm. PVC insulated multistandarded FRLS Grade flexible copper wires through 25mm size MMS Grade PVC conduites, laid on surface above false ceiling and taken upto table top using 25/20 mm size MMS Grade PVC rigid or flexible conduits run within wooden or metal partitions.				
	Each point consisting of 2 Nos of 6A, 5 Pin Modular sockets and 1 No. of 16A, 6 pin socket controlled by 1 No 20A Modular switch & Indicator lamp, wired together forming one point. Earth wire to be of Green colour only. Switch should be above table top & sockets with indicator should be below table top.				
7.2.	RAW POWER POINTS				
	POINTS' QUANTITY TO BE KEPT STRICTLY AS MENTIONED BELOW				
7.2.a.	Primary Raw power points (To be drawn from RAW POWER & AC DB (S.No. 2.b)) <i>for Printers / Cash counting machine / Water cooler etc.</i>	No	2.00		
	Supplying & Installing Primary 20 A Power Socket points using 2x4.0 Sq.mm. + 1x2.5 Sq.mm. PVC insulated multistandarded FRLS Grade flexible copper wires (with proper color code) pulled through heavy gauge PVC conduits directly from Power & AC DB.				
	Each point consisting of 1 Nos of 20 A Modular sockets controlled by 1 Nos of 20A Modular switch, wired together forming a point. Earth wire to be of Green colour only.				
	NOTE: One point to be provided in hall for water cooler				
7.2.b.	Secondary Raw power points (To be looped from Primary Raw Power Points (S.No.8.2.a.) - <i>for Counters & Tables & misc.</i>	No	2.00		
	Supplying & Installing Primary 10/20 A Power Socket points using 2x2.5 Sq.mm. + 1x1.5 Sq.mm. PVC insulated multistandarded FRLS Grade flexible copper wires (with proper color code) pulled through heavy gauge PVC conduits looped from Prima				
	Each point consisting of 1 Nos of 10/20 A Modular sockets controlled by 1 Nos of 20A Modular switch, wired together forming a point. Earth wire to be of Green colour only.				
	Only 1 Secondary Raw power point must be looped from the Primary Power Point. A combination of only 1 primary point & 1 secondary point to be served by one circuit taken from Raw Power & AC DB				
7.3.	LIGHT POINT WIRING				

	SITC of following concealed point wiring using 1100V grade 3x1.5 Sq. mm. Multistrand copper conductor PVC insulated FRLS wires (with proper R,Y,B colour code) pulled through 25mm / 20mm Size, MMS Grade PVC conduits. All wiring below false ceiling shall be concealed. The wires from ceiling junction to light points shall be drawn in flexible PVC conduit with adaptor & cover for junction box & crimp type lugs at both ends. Each circuit feeding not more than average 12 points (800 watts). The rate shall include circuit wiring (2x2.5 Sq. mm. + 1x1.5 sq.mm.) from Lighting DB to switchboard and to the fixtures. (No separte measurements for circuit wiring & PVC Conduits) <i>The First Point will be considered as Primary Point and balance points as Secondary Points.</i>				
7.3.a.	Primary Light points, Powered from LIGHTING DB (S.No. 2.a)	No	25.00		
	SITC 5/6A Primary light points including MS concealed box, grid plate, 6A switch & circuit wiring through LDBs				
7.3.b.	Primary Light points, Powered from INVERTER Lighting DB (S.No. 2.f)	No	10.00		
	SITC 5/6A Primary light points including MS concealed box, grid plate, 6A switch & circuit wiring through Inverter DB				
7.3.c.	Secondary Light points, to be looped from Primary Light Points (S. No. 7.3.a.)	No	12.00		
	SITC 5/6A Secondary light points looped from primary light point.				
7.3.d.	Independent 5/6A socket points, Powered from LIGHTING DB (S.No. 2.a)	No	4.00		
	SITC of Primary 5/6A Socket points using circuit wiring (with proper color code) pulled through medium gauge PVC conduits.				
	Each point consisting of 1 Nos 5 pin of 5/6A sockets controlled by 1 Nos of 6A switch, wired together forming a point with Green colour Earth wire.				
7.3.e.	Dependent 5/6 A socket points (on Board plug points), Powered from LIGHTING DB (S.No. 2.a)	No	8.00		
	SITC Secondary 5/6A Socket points using circuit wiring (with proper color code) pulled through haevy gauge PVC conduits. These points are installed on the Lighting Switch Board.				
	Each point consisting of 1 Nos of 5 pin 5/6A sockets controlled by 1 Nos of 6A switch, wired together forming a point. Earth wire to be of Green colour only.				
7.3.f.	Exhaust fan points, Powered from LIGHTING DB (S.No. 2.a)	No	3.00		
	SITC of concealed point wiring for Exhaust fan using 1100V grade 3x1.5 Sq. mm. Multistrand Copper Conductor PVC insulated FRLS wires (with proper R,Y,B colour code) pulled through 25mm / 20mm Size, MMS Grade PVC conduits. All wiring below false ceiling shall be concealed. The wires from ceiling junction to fan points shall be drawn in flexible PVC conduit with adaptor & cover for junction box & crimp type lugs at both ends.				
	The rate shall include circuit wiring (2x2.5 Sq. mm. + 1x1.0 Sq. mm.) from Lighting DB to switchboard and to the Exhaust fan and Wall fan. (No separte measurements for circuit wiring & PVC Conduits)				
	Each Exhaust Fan will be operated on separte switch, Rate should be including the cost of 6 A switch, 4 way closed 5A connector & Mounting Plates & Ceiling Rose.				
7.3.g.	Wall Fan points, Powered from INVERTER Lighting DB (S.No. 2.f)	No	12.00		
	SITC of concealed point wiring for Exhaust fan using 1100V grade 3x1.5 Sq. mm. Multistrand Copper Conductor PVC insulated FRLS wires (with proper R,Y,B colour code) pulled through 25mm / 20mm Size, MMS Grade PVC conduits. All wiring below false ceiling shall be concealed. The wires from ceiling junction to fan points shall be drawn in flexible PVC conduit with adaptor & cover for junction box & crimp type lugs at both ends.				
	The rate shall include circuit wiring (2x2.5 Sq. mm. + 1x1.0 Sq. mm.) from Lighting DB to switchboard and to the Exhaust fan and Wall fan. (No separte measurements for circuit wiring & PVC Conduits)				
	Each wall fan will be operated on separte switch, Rate should be including the cost of 5/6 A switch, 3 pin 5/6A socket, gang box & Mounting Plates				
8.1.	Indicator Lights point (for Non-Essential VTPN DB1)	Set	1.00		
	Providing and fixing R-Y-B Indicator LED Light Assembly concealed in display boxing along with Point Wiring to be done with 4C 1.5 Sq.mm. PVC insulated multistanded FRLS Grade flexible copper Cable drawn through Heavy gauge PVC conduit from Respective DB / MCCB. The route of the indicator wiring to be as under:				
	4C 1.5 Sq.mm. cable looped from Output side of MCCB of Main Panel VTPN DB1 (1.3.1. - (ii))				
	TO R-Y-B Indicator Lamp Near Entrance				
	R-Y-B Colour Indicator Lamps for Non-Essential Power VTPN DB				
	The indicators must be placed next to the main entrance at a suitable location so that they are visible through any one of the branch's CCTV Cameras				
	The looping of the cable must be done carefully using proper lugs and must be fastened rigidly to avoid faults				
8.2.	Indicator Lights point (for Non-Essential UPS Output Load & Inverter Lighting Load)	Set	2.00		

	Providing and fixing Single Indicator LED Light of mentioned colour concealed in display boxing along with Point Wiring to be done with 2C 1.5 Sq.mm. PVC insulated multistandarded FRLS Grade flexible copper Cable drawn through Heavy gauge PVC conduit from Respective DB / MCCB. The route of the indicator wiring to be as under:				
	1. 2C 1.5 Sq.mm. cable looped from Output side of DPMCB1 of MB Box near branch entrance (3.a. - (ii)) to R-Led Indicator				
	2. 2C 1.5 Sq.mm. cable looped from Output side of DPMCB2 of MB Box near branch entrance (3.a. - (ii)) to B-Led Indicator				
	R-Indicator LED Light Assembly concealed in display boxing for Non Essential Branch UPS Output				
	B-Indicator LED Light Assembly concealed in display boxing for Inverter Lighting Output				
	Red Colour Indicator lamp for Non-Essential UPS Output				
	Blue Colour Indicator lamp for Inverter Lighting Output				
	The indicators must be placed next to the main entrance at a suitable location so that they are visible through any one of the branch's CCTV Cameras				
	The looping of the cable must be done carefully using proper lugs and must be fastened rigidly to avoid faults				
	9 EARTHING SYSTEM				
	9.1. Plate Earthing				
	S & I of Earthing Pit / Earth Electrode Station into the true ground level by using GI / Copper Plate type earthing with necessary excavation in soft soil, including Pouring Charcoal & Salt (Approximately) 50kg each per Pit with Predrilled 50mm dia B class GI Pipe-2.5 Mtr In length, GI Funnel with wiremesh, 35 x 5mm GI/Cu Earthing Strip, Complete job with necessary construction of appropriate sized Earthing PIT masonry Chamber with providing CI hinged chamber cover, Nutbolts, Earthing Testing Link, Hardware, Numbering of Chamber by using water proof paint. For more details refer IS 3043-1987 Brazing for Cu & Welding for GI Plate to pipe & Strip shall be done with coating by anti-corrosive paint				
	9.1.a. CU Plate earthing.	No	2.00		
	Copper earthing pit made up of 600 x 600 x 3 mm thick, copper electrode including 25 x 5 mm Copper strip.				
	9.2. Earthing Wires				
	SITC of insulated copper earthing wire laid through 20 mm PVC conduits from separately made earth pit to the equipment in following sizes				
	9.2.a. Single core, 4 sqmm FRLS PVC insulated multi threaded, flexible copper wire laid through 20 mm size, MMS Grade PVC Conduites for Raw Power Earthing.	Rmt	80.00		
	9.2.b. Single core, 6 sqmm FRLS PVC insulated multi threaded, flexible copper wire laid through 20 mm size, MMS Grade PVC Conduites for UPS power Earthing.	Rmt	100.00		
	9.3. Main Earth Bus	No	2.00		
	Supplying & Installing of Main bus for isolated earth comprising of 200mm x 40mm x 6mm thick copper bar fixed on insulated support and having 20 nos of holes and nut bolts studs for clamping the earth leads,all contained in MS/PVCbox of size 300mm x 200mm x 50mm deep and having transparent acrylic inspection cover as approved by Bank / Architect.				
	10 TELEPHONE / VOICE CABLING AND OUTLETS	No	2.00		
	Providing and laying 2 Pair Grey Color 0.5mm Tinned Cu , PVC insulated cable for Telephone / Voice, laid through 20 / 25 mm size, MMS Grade PVC Conduites and Supplying & terminating with RJ-11 Telephone Jack / Outlet with face plates in suitable modular PVC / MS box from EPABX / Krone Tag Box to the work stations and terminate the other on a 10 pair Krone module installed in a Krone Tag box, complete 10-pair 0.5 Sq. mm. size Telephone Cable for incoming with numbering of each cable with Ferule and Telephone Connection Chart <i>(No separte measurements for PVC Conduits)</i>				
	11 DATA CABLING SYSTEM				
	11.1. Data points (To be routed from existing networking rack and existing patch panel)	No	11.00		
	Supplying and laying D-Link / Molex / Awaya / Amps make, Cat 6 cable for Data, laid through 20/25 mm size, MMS Grade PVC conduites and providing & terminating with RJ-45 Information Outlet Ports with face plates in suitable modular PVC / MS box from Server Rack/ Patch Panel/ Data Switch to individual work stations & terminating other end with RJ-45 connector including numbering with ferule <i>(No separte measurements for PVC Conduits)</i>				
	11.2. Supplying & laying Cat-6, RJ-45, 1 m. length Data Patch Cords,	No	11.00		
	Make : D-Link / Molex / Awaya				
	11.3. Supplying & laying Cat-6, RJ-45, 2 met length Data Patch Cords,	No	11.00		
	Make : D-Link / Molex / Awaya				
	12 MISCELLANEOUS WORKS				

12.1.	Supply and installation of Vinyl sticker for on Electrical DBs like, " <u>Switch Off at Night</u> ", <u>Switch Off For Safety</u> , etc	Nos.	4.00		
12.2.	Angle holder complete in all respect with 9W White LED Bulb	Nos.	3.00		
12.3.	Supply and laying of ISI mark Electrical safety Insulating mat of dimension 1000mm X 1000mm in Electrical panel & UPS Room.	Nos.	3.00		
13	Providing temporary setup of UPS Points, Light & Fan points, Raw Power Points & Data Points for uninterrupted functioning of the branch	Job	1.00		
14	FIXTURES				
	SITC of following concealed / surface mounted fixtures of makes as specified with all fixture accessories like suitable tubes/ bulbs/ ballast & internal wiring etc. The contractor has to assemble & install the said fixtures at position with necessary hardware required for installation like S-hook, chain link etc. as per requirement.				
14.1.	LED tube lights 4'	No	10.00		
	SITC 1200 mm Long Surface/Wall Mounted extruded Aluminium channels, with 20 w LED Tube light fixtures complete. Rate should be including the cost of Fixture, Suspending suitable rods, other accessories & hardware etc.				
14.2.	LED tube lights 2'	No	2.00		
	SITC 600 mm Long Surface/Wall Mounted extruded Aluminium channels, with 10 w LED Tube light fixtures complete. Rate should be including the cost of Fixture, Suspending suitable rods, other accessories & hardware etc.				
14.3.	10W Down lighter with LED	No	12.00		
	SITC 10W White Powder Coated Housing LED Round / Square Down Lighter with High Efficiency LEDs & Ballasts				
14.4.	600 x 600 mm square LED panel fittings	No	20.00		
	SITC of Full Glow 36W / 40W White LED Square Light Panel of 600mm X 600mm size, Powder coated Recess mounting LED Light Fitting (Min 6000K)				
14.5.	Fans				
	Supplying & Installing following mentioned Aluminum, medium duty, powder coated with glossy color Ceiling Fans / Wall Fans / Exhaust Fans with necessary clamps hook, bracket, hardware etc				
14.5.a.	SITC 250mm sweep Exhaust fan of metal body & blade with louvers on the outside	No	3.00		
14.5.b.	SITC 400mm sweep Wall fan of 1350 RPM. Oscillating type, Metal Body & blades chrome plated guard with speed regulator and moisture proof treatment to winding and with 'E' class insulation.	No	12.00		
	TOTAL FOR ELECTRICAL WORKS				
	CGST 9%				
	SGST 9%				
	GRAND TOTAL				