

**N.O.W. - ELECTRICAL WORK OF STATE BANK OF INDIA**  
**Price Bid Electrical work of State Bank of India Branch Office at Mandola (Harvana).**

S. No.	Item	Quantity	Units	Rate	Amount
<b>1</b>	<b>SUB HEAD 1 (COMPUTER POINTS AND DISTRIBUTION)</b>				
1	Supply all materials, receiving, storing, handling, fixing and laying 3 x 2.5 sq.mm PVC insulated copper conductor armoured cable and fixing of cable on wall with suitable size of clamps/saddles or laid in floor or recessed wall including cutting of floor/wall for computer points with suitable size GI Box with modular plate and cover in front including providing and fixing 3 no. 5 amp 5 pin modular sockets controlled by 1 no. 5 Amp switch with indicator, connection end terminations with suitable size of glands etc. complete as required. <b>(Only two points can be connected in series with single cable ) ( Make: Anchor/Crabtree/North West/ REO)</b>	12.00	Each		
	<b>4 points for BM Cabin, 2 points for Networking Equipment's in Banking Hall, 2 per Officer, SWC.</b>				
2.2	As per item 1 above but with 1 no. 5 amp 5 pin modular sockets controlled by 1 no. 5 amp modular switch including the cover plate. <b>(For T.V on Pillars / As per Branch Requirement)</b>	1.00	Each		
3	Providing and fixing, testing and commissioning of Heavy Duty modular air-conditioning plug & socket arrangement:				
3.1	25 amp air-conditioning point modular type socket { <b>to be fixed 1.5 foot below false ceiling</b> } with 25 amp DPMCB C SERIES { <b>to be fixed at Normal Height</b> }.	3.00	Each		
	<b>As per the Plan provided by the Architect</b>				
4(a)	<b>Circuit Wiring:</b>				
	Circuit wiring from the MCB/MCCB from the Distribution Board to the Switch Board with 2 x 2.5 sq.mm + 1-1.5 sq.mm copper conductor (FRLS) in PVC Conduit concealed/open and making good the damaged surfaces as per direction of the Engineer-in-charge. including the cost of the PVC conduit 2mm thick. At least <b>9 points of Point Wiring shall required to be connected with single circuit.</b>	5.00	Each		
4(b)	<b>Point Wiring:</b>				
1	Wiring for light point/ ceiling fan point/ exhaust fan point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit ISI Mark, with 6 Amp modular switch, modular plate, suitable GI junction & switch boxes & clip and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required. <b>(Wires Make: Havells/ RR Kable / KEI/Finolex) (Switches : Make: Anchor/Crabtree/North-West/MK)</b>				
a)	Single 6 Amp Switch controlling 1 light point for T-5 , Cove light, Exhaust Fans, Ceiling Fan and other separate room supply	15.00	Each		
b)	Single 6 Amp Switch controlling 4 no. Down lighter or 2 no. 2X2 36 Watt Light fittings as per the requirement.	12.00	Each		
c)	Supply and Installation of Points including modular socket of 5 Amp and 5 Amp Switch Dependent type.	5.00	Each		
4(c)	Supply all material, storing, handling, fixing of <b>Raw power points</b> in suitable size of GI/PVC box including providing 1 no. 15 amps 6 pin modular power sockets controlled by 1 no 15 A moduler type switch and indicator with moduler cover plate etc complete as required including 2X2.5 sq. mm FRLS copper wire + earth wire in dia 2 mm in thickness ISI Mark PVC pipe. <b>(Switches : Make: Anchor/Crabtree/North-West/ MK) (Wires Make: Havells/ RR Kable / KEI /Finolex {Two points to be provided per circuit.})</b>	6.00	Each		
	<b>Extension of wall fans:</b>				
5	Extension of points with 2 x 1.5 sq.mm. FRLS PVC insulated copper conductor cable in suitable dia MS conduit in recess conduit wiring system for wall fan points with modular switches of 6 amp { <b>to be fixed at Normal Height</b> } and 5 amp 5 pin modular sockets { <b>to be fixed 1.5 foot below false ceiling</b> } as per requirement and filling chassis etc complete as reqd. <b>(Wires Make: Havells/ RR Kable / KEIG/Finolex) (Switches : Make: Anchor/Crabtree/North-West/MK)</b>	6.00	no.		
6	Providing & laying following sizes of PVC insulated copper conductor cable of 1100 V in flexible/PVC conduit with accessories such as glands. bends etc.(as per requirement) including making necessary Inter connection etc complete as reqd.				
a)	2 x 10 sq.mm with 1 no. suitable PVC insulated earth wire	12.00	mtr.		
7	Supply Installation, testing & commissioning of Double Door factory fabricated distribution board rust inhibited, powder coated sheet fabricated comprising of incoming & outgoing isolator & MCB's neutral link or neutral bus,top and bottom detachable entry earthing bolts Interconnection and grouting bolts etc complete as require as per details below:- <b>(Make: Havells/HPL/Standard/ Legrand/L&amp;T )</b>				
a)	6 way MCDB comprising of 1 no. 32 amp DPMCB "C"Series and 4 no. 6/10amp SPMCB's "C" SERIES. <b>(for the UPS points each DB to be connected to 8 UPS points i.e only two points shall be connected with one MCB)</b>	2.00	each		
b)	4 way TPDB comprising of 1 no. 100 amp 4 pole isolator and 6 no. 32 amp DPMCB <b>(for AC's). [DPMCB must be of C Series]</b>	1.00	Each		
c)	4 way TPNDDB comprising of 1 no. 63 Ampere TPN MCB "C" Series and 12 nos. 16-25 amp SPMCB "C" Series. <b>(For Power Point &amp; Lighting Circuits).</b>	1.00	Each		
d)	4 way DB comprising of 1 no. 63 amp 4 pole Isolator <b>(for UPS I/C Branch).</b>	1.00	Each		
e)	4 way DB comprising of 2 no. 32 amp DPMCB "C " Series <b>.(for UPS O/P Branch).</b>	1.00	Each		
8	Supply, fixing and testing of following 3 pin metal clad industrial type plug & socket arrangement with plug top cap & chain controlled by 1 No. MCB . <b>(Make: Havells /HPL /Standard/ Legrand /L&amp;T )</b>				

S. No.	Item	Quantity	Units	Rate	Amount
a)	20/25 amp with 20/25 amp SPMCB	4.00	no.		
b)	32 amp with 32 amp SPMCB	3.00	no.		
8	Providing, fixing, testing and commissioning of 15 Amp Power Point modular type socket with 25 amp DPMCB C SERIES along with Plug or the rooms so that the supply is connected only when the plug is inserted in the socket outside the rooms for fire safety. {1 each for Record Room, Cash Safe Room , Strong Room I/C }	2.00	no.		
9	Providing & fixing suitable size of MS box fabricated with 16 S.W.G.M.S. sheet either In recess wall or on surface to accommodate dedicated earth from earth electrode and further distribution of earth to computer points including providing 5mm bakelite sheet on base connector strip and painting of box etc complete as reqd.	1.00	job		
<b>TOTAL SUB-HEAD-1</b>					
<b>SUB HEAD 2 (PANELS &amp; CABLES)</b>					
1	Providing & fixing 3 No. 200 amp kit-kats (fuse carrier & base) with 1 no. neutral link on suitable size of Bakelite sheet of thickness not less than 6 mm etc. Complete as reqd.	1.00	job		
<b>MAIN PANEL</b>					
2	Supply at site installation, testing & commissioning of panel fabricated with 16 S.W.G. M.S. sheet. The panel shall be free standing type totally enclosed dust & vermin proof construction with rubber gaskets. The floor mounting panel shall have ISMC mounting channels, G.I. earth bus bar, bus bar chamber cable alleys interconnections with solid bar/PVC insulated copper conductor as per requirement, and suitable supports of bus bars. The panel shall be painted with 2 coats of enamel paint (grey shade) over the primer and shall also be provided with designation of incoming & outgoing feeder as per details below-				
<b>INCOMING</b>					
a)	160 amp MCCB 4 pole with 36 KA breaking capacity at 415 Volts/ HIGHEST AVAILABLE.				
b)	1 set of 250 amp TPN aluminium bus-bar chamber				
c)	1 no. 0-500 V Voltmeter with selector switch in a separate compartment and amp meter with selector switch and one set of CT's (3 no.) with CT ratio 200/5 A with LED type indication lamps with protection fuses in a separate compartment				
<b>OUTGOING</b>					
a)	2 No. 100 amp 3 pole MCCB , 3 No. 63 amp 3 pole MCCB. (MCCB'S WITH 25KA BREAKING CAPACITY at 415 Volts. / HIGHEST AVAILABLE ). ( For A.C, UPS, Lighting & Heating)	1.00	set		
3	Supply, installation, testing & commissioning of PVC insulated PVC sheathed armored cable of 1100 V (IS-1554 part I) and fixing of cable on wall with suitable size of clamps/ saddles or laid in floor/recess wall including cutting of floor/wall and making good the damages etc. complete as reqd. of following sizes:- (Make: Havells/ RR Kable / KEI/Finolex)				
a)	3.5 x 35 sq.mm. aluminium conductor with 2 no. 8 S.W.G.G.1. wire (from the Meter to the Change Over and from the Genset to the Change over and from change over to the Main panel I/C)	30.00	per mtr.		
b)	3 x 2.5 sq.mm. copper conductor . ( A.C Wiring)	55.00	per mtr.		
c)	3.5 x 25 sq.mm. aluminium conductor with 2 no. 8 S.W.G.G.1. wire. (from the main panel to the AC DB and the Power Light DB and to UPS I/C)	45.00	per mtr.		
d)	3 x 6 sq.mm copper conductor (for UPS DB)	35.00	per mtr.		
4	End termination with Brass compression glands including providing lugs/ferruls and making necessary connections etc. complete as reqd. of following sizes:-				
a)	3.5 x 35 sq.mm. aluminium conductor	4.00	each		
b)	3 x 2.5 sq.mm. copper conductor	16.00	each		
c)	3.5 x 25 sq.mm. aluminium conductor with 2 no. 8 S.W.G.G.1. wire	8.00	each		
d)	3 x 6 sq.mm copper conductor	4.00	each		
5	Providing & fixing suitable size of angle iron frame suitable for installation on wall/floor including grouting of frame & painting etc. complete as reqd. comprising of the following: (Make: Havells /HPL /Standard/ Legrand /L&T )				
a)	1 NO.4 pole 100 amp or Higher Rating Only capacity On Load changeover switch	1.00	job		
6	Providing & fixing 16 S.W.G. M.S. Sheet adapter box, and also base frame for installation of M.C.B. D.B.'s plug & socket arrangement and to cover cables in system room including painting etc. complete	1.00	sqmt.		
<b>TOTAL SUB-HEAD-2</b>					
<b>SUB-HEAD 3 (EARTHING)</b>					
1.1	Supply & fix copper plate earth station with 600x600x3 mm thick copper plate including all accessories such as watering pipe & funnel and providing masonry enclosure at top with cover plate i/c excavation of pit supplying & filling of salt charcoal, refilling of pit etc complete as reqd as per IS 3043-1987. The voltage between neutral & earth must be below 1 volt.	1.00	set		
1.2	Supply & fix G.I. plate earth station with 600x600x6 mm thick G.I. plate including all accessories such as watering pipe & funnel and providing masonry enclosure at top with cover plate i/c excavation of pit, supplying & filling of charcoal, refilling of pit etc complete as reqd as per IS 3043-1987 .	2.00	set		
<b>NOTE: chamber for the earthing shall be available at site without it the earthing cost shall not be paid for all the Earthing You are also required to provide picture of earthing taken at the time of execution of the same.</b>					
2.1	Supplying and laying 20 mm X 3 mm copper strip at 0.50 meter below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required	5.00	mtr.		

S. No.	Item	Quantity	Units	Rate	Amount
2.2	Supplying, fixing & termination of 20 mm X 3 mm GI strip with earth station below ground level and on wall saddle etc complete as reqd.	10.00	mtr.		
3.1	Providing & fixing 8 S.W.G Copper earth wire on surface or in recess for loop earthing etc. as reqd.	40.00	mtr.		
3.2	Providing & fixing 8 S.W.G G.I. earth wire on surface or in recess for loop earthing etc. as reqd.	60.00	mtr.		
4	Supply & laying following dia 2 mm in thickness PVC pipe under floor or in recessed walls from earth electrode to UPS room for computer dedicated earthing, for data cabling, electrical cabling etc. including providing 1 no. G.I. pull wire for data cabling making good the damages etc. wherever reqd.				
a)	25mm	70.00	mtr.		
<b>TOTAL SUB-HEAD-3</b>					
<b>SUB HEAD 4 (NETWORKING)</b>					
1	Wiring for computer networking starting from mounting rack with UTP CAT-6 cable in 2 mm thick 25mm dia ISI mark PVC conduit with accessories such as bends, junction boxes including providing and fixing I/O plates and SMB complete with all networking accessories etc complete as reqd. Maximum 6 number of Data cables must be run in 1 PVC Pipe. (Make: D-Link/MOLEX/AMP/COMMSCOPE).	10.00	no.		
<b>3 points for BM Cabin, 2 per Officer, SWC and 1 in Banking Hall for Machines as per the requirement</b>					
2	Supply, installation, testing and commissioning of 24-port Patch Panel	1.00	no.		
3	Supply installation, testing and commissioning of mounted rack 12U height made of powder coated MS sheet.	1.00	no.		
4	Supply, fixing and commissioning of patch cable Cat-6 complete with 2 no. connectors etc. complete as reqd.				
a)	1m long	10.00	no.		
b)	2m long	10.00	no.		
5	Providing, Laying, testing & commissioning of 10 pair telephone cable from outside govt. / bsnl DB to Rack for lease line, ISDN of Make: Delton, finolex, polycab.	30.00	mtr.		
6	Wiring for telephone points with 0.6 mm dia 2 pair insulated annealed tinned electrolytic copper conductor in 2 mm thick 25 mm dia ISI marked PVC conduit complete with accessories such as bends, junction boxes etc. with suitable size of G.I. box modular plate and cover in front on surface or in recess including providing and fixing modular type telephone socket outlet and making necessary connections etc. complete as reqd.	4.00	no.		
7	Supply, fixing and commissioning of 10 pair tag block for telephone points. (box and strips Krone make)	1.00	no.		
<b>TOTAL SUB-HEAD-4</b>					
<b>SUB-HEAD 5 (AIR CONDITIONING PIPING WORK)</b>					
1	Supplying & Laying of following COPPER REFRIGERANT PIPING Thickness 22 SWG For Hi-wall Split AC complete with fittings Suction / Discharge line insulated with 12 mm SUPERLON / ARMAFLEX suction line. Multi-runs between Indoor & Outdoor units shall be considered as ONE length for the purpose of measurement. (Make: Total Line/Armcell)				
a)	1/4" + 1/2" Refrigerant piping - For Hi wall Split AC's	25.00	per mtr.		
2	Supply and laying following 25mm dia 3.38mm (confirming to ASTM D1785 standard) in thickness, heavy duty PVC pipe under floor or recessed in walls for AC drains, To nearest To including bends, Tees etc as required complete in all respect. (Make: Diplast/Supreme)	25.00	per mtr.		
3	Electrical flexible cable of 3 x 2.5sq.mm FRLS Cu cable multi strand suitable for 2 Tr H.W Split & 1.5 Tr H.W Split. Multi-runs between Indoor & Outdoor units shall be considered as ONE length for the purpose of measurement. (Make: Havells/ RR Kable / KEI/Finolex)	25.00	per mtr.		
<b>TOTAL SUB-HEAD-5</b>					
<b>SUB HEAD 6 (FANS AND FIXTURES)</b>					
1	SITC of 2"x2" Ceiling grid 33-36 watt LED panel fixtures with essential driver in false ceiling including making necessary arrangement for mounting the fixtures and connection with 2 x 1.5 sq.mm insulated copper cable from adjacent point in PVC flexible pipe etc Complete as reqd. Cat. No. BZRSQL 43L LED GF of Bajaj or equivalent of Philips / Wipro. 120 Lumens per Watt. Color temperature 6000K.	8.00	no.		
2	SITC of 15 watt LED fixtures /dowlighters with essential driver in false ceiling including making necessary arrangement for mounting the fixtures and connection with 2 x 1.5 sq.mm insulated copper cable from adjacent point in PVC flexible pipe etc complete as reqd. Make Phillips / Wipro / Bajaj.	17.00	no.		
3	SITC of 18 watt of T5 LED fixtures directly on ceiling / wall including making necessary connections with 2x1.5 sq.mm insulated copper cable conductor wire etc. complete as reqd Make: Phillips / Wipro / Bajaj.	8.00	no.		
4	SITC of 450 mm sweep wall fan Metal Body Crompton greaves ( or equivalent) SDX BLACK GOLD / SSTROM 2 wall fan etc. 1325 rpm High Flow Model with 2 Pin Plug complete as required. (M/s equivalent of Bajaj / Havells/Usha )	4.00	no.		

