

**BOQ FOR ELECTRICAL WORKS AT CANARA BANK BRANCH AT MALLANWALA KHAS.**

S.No.	Item	Quantity	Units	Rate	Amount
<b>PART-2 : ELECTRICAL WORKS</b>					
<b>1</b>	<b>LT PANEL</b>				
1	Design, Manufacture, Supplying and Commissioning Main LT Panel MS 3' x 4' Distribution Board fabricated out of 1.6mm thick MS sheet, cubicle type with Danger Notice Board indicating sign (DANGER) in English, Hindi, Pinjabi, wall mounted fully recessed / partly recessed with dust proof hinged and lockable doors, brass cable glands for incoming and out going connections with inter connections with copper tapes /wires consists of following:-	1	no.		
a)	INCOMER: A cubical having 100 Amps TPN(Before bus bar) breaking current 20KA, 100 Amps TPN Bus Bar (Copper Tinned), voltmeter, ammeter & Digital power factor meter , three indicators, C.Ts. with selector switches & backup fuses (HRC type)				
b)	100 Amps 4 Pole Heavy duty on load change over switch-1 No.				
c)	OUTGOING: 63 amps 3 phase and neutral 6 way lighting D.B. with suitable rated 6/10/16 Amps SP MCB-8 Nos (for switch board wiring)., 32/40Amp DP MCB-3 Nos.( 1 for ATM UPS i/p, 2 Spare)				
d)	63 Amps 3 phase & neutral 6 way power DB with suitable rated 32/40 Amps DP MCB-9 Nos. (7 for AC ckt 2 spare) 20 Amps SP MCB-10 Nos ( 8 nos for 16A plug point each separate wiring, 1 for glow sign, 1 spare)				
e)	63 Amps FP ELCB-1 Nos. for LDB & 63 Amps FP ELCB-1 No. for PDB, ELCB of 30MA having 30 m Sec. Sensitivity (Complete as per technical specifications and including earthing of each Electrical equipments)				
f)	LT Panel labeling using aluminium strip for section wise load distribution (Complete as per technical specifications and including earthing of each Electrical equipments)				
<b>2</b>	<b>PHASE SELECTOR SWITCH</b>				
	Providing & installing 3 Phase to single phase selector switch of 40ampere for UPS supply line. This selector switch to be connected in main panel after 63 Amps TPN ELCB -1No. For UPS input circuit from where UPS input wire is to derived, to select the any of the R, Y, B phase for UPS input supply line in case of any particular phase failure.	1	no.		
<b>3</b>	<b>LIGHT POINT WIRING</b>				
	Wiring for light points with 2x1.5sqmm + 1.00sqmm and PVC insulated copper conductor wire of 650/1100 volts grade in concealed / exposed PVC pipe, including by 5 Amp piano type modular switch with MS boxes, including making all the connections, including cutting chases and making good the surfaces wherever required. <b>(This also includes SPMCB of Main panel to switch board wiring of minimum 4 sq mm copper wire and non of the switch boards circiut wiring to be paralled. Each switch board must be fed from separate circiut wiring fromSPMCB of the Main panel)</b>				
a)	Each Light point controlled by one 6 amps modular type switch.( Proper care must be taken for neutral return line and not more than two switches return line is to be looped or paralled).	48	no.		
b)	Wiring for 5Amp light plug points with 2x1.50+1.00 sqmm & PVC insulated copper conductor wire of 650/1100 volts grade with PVC insulated Copper earth wire in concealed / exposed PVC pipe.,including 5pin 5Amp Socket with modular switch with MS boxes with earthing the third points, including cutting chases and making good the surfaces wherever required.	12	no.		
c)	Light Plug Point in Counter/Wall/Partition (in 6Module PVC box with plate) (2 Socket 1 switch DIRECT) <b>One for every two seats</b>	5	no.		
d)	Light Plug Point for Wall/Bracket/EXHAUST Fan	15	no.		
<b>4</b>	<b>POWER POINT WIRING</b>				

	Wiring for 16Amp (Socket board 2 no. 16A, 6-pin socket with 2 nos 16A switch) power plug points with 2x4+1.50 sqmm PVC insulated copper conductor wire of 650/1100 volts grade with PVC insulated copper earth wire in concealed / CONCEALED PVC pipe, including 2 no. 6pin 16Amp Socket with 2 no. 16Amp modular switch with MS boxes with earthing the third points, including cutting chases and making good the surfaces wherever required. There must be separate circuit wiring for each point & this circuit wiring must not be paralleled/looped with switch board of light/plug points. (Location: Pantry, water cooler, Manager cabin-1nos, Cash cabin-1no, for each two counter one 16A plug point for winter ) <b>THIS POINT MUST BE PROVIDED ON THE WALL NOT ON THE WORKING COUNTERS</b>	6	EACH		
<b>5</b>	<b>FANS</b>				
a)	<b>EXHAUST FAN:</b> Supply fixing and installing the 300 mm diameter single phase 230 volt AC exhaust fan for toilets complete with motor, capacitor fan assembly mounting and frame & louvers. (2 nos in toilets and 1 nos in UPS room)	3	EACH		
b)	<b>WALL FAN:</b> 400mm sweep, oscillating type, 3-speed pull control, single piece type propeller <b>Wall/Brackets fan</b> (Supply & Fixing)	12	EACH		
<b>5</b>	<b>AC POINT:</b>				
a)	Wiring for <b>Air Conditioners points with 2x4+1x4sqmm PVC insulated copper</b> conductor wire of 650/1100 volts grade with PVC insulated copper earth wire in concealed / exposed PVC pipe, <b>including Concealed Industrial Metallic Socket with 20/32Amp SP MCB housed in MS sheet box</b> with PVC insulated Copper earth wire. Work is also including circuit wiring & cutting chases and making good the surfaces wherever required. (Circuit Shall not be paid extra) There must be separate circuit wiring for each point & this circuit wiring must not be paralleled/looped with switch board of light/plug points. <b>The MCB for AC should not be at height more than 5' and 3 pin power socket should be near to AC. (2 nos in ATM cabin and 4 nos in Banking Hall)</b>	5	EACH		
b)	Metal clad Plug/Socket with 40Amps MCB for UPS I/P and O/P Points and for AC's	5	EACH		
c)	<b>Drain piping</b> in Flooring/Wall in the Banking Hall/ATM/AGM Cabin/Manager Cabin (Make - Polycab/Supream/DiPlast). Drain Pipe should be concealed in the Wall/Flooring including cutting of wall and plastering work, including all masonry work.	0	MTR		
d)	Providing & fixing of insulated copper piping along with the copper cables/wiring of 2.5 sq mm x 3 from outdoor to indoor which will run along with the refrigerant pipe (concealed) as per specification and drawings. (1.5 TON TO 2.5 TON AC)	0	RM		
<b>6</b>	<b>LIGHTING FIXTURES</b>				
	<b>Supply, unpacking, assembling, testing, fixing, connecting and commissioning the following luminaries required for internal wiring of the bank premises complete in all respect.</b>				
a)	Ceiling Recessed full glow LED Down light for 2'x2' grid ceiling 36W with glare free end to end diffuser complete with all accessories & constant current electronic driver. Diffuser must be complete/end to end for better light distribution. Crompton Greaves Model LCLTR-36-FO-CDL, Polycab Model-PCGLLL 36W, Philips model-rc380BLED 6500, Wipro Model CRCO11RO38HP57	15	no.		
b)	Surface mounted Box type <b>1 x 28watt T-5</b> lamp channel luminaires suitable for 1 x 28watt energy saving tube lamp complete with box type fixtures including lamp, electronic choke (Low losses & improved power factor) and lamp holder etc. along with erection of the same with connections, testing etc. complete in all respects as approved and desired by the Engineer-in-charge at site of Philips cat no. TMS122 M 1xTL5-28W EBT or Crompton cat no. T5RSF28EB or equivalent	6	no.		
c)	LED 15 Watt round down lighter of Crompton Greaves Model, Philips, Wipro make or equivalent (To be fixed in the Gypsum not in the Grid ceiling)	19	no.		
d)	Providing & Fixing holder with 15 watt led lamp in toilet & pantry etc., complete in all respects.	3	no.		

<b>7</b>	<b>TELEPHONE POINTS</b>				
a)	Wiring for Telephone points with 4 pair 0.61 mm Taped Copper wire with PVC pipe with 2 pin Telephone outlet (Anchor Roma) in modular type cover. (Please note that this TELEPHONE wiring is to done from MDF to Router location with minimum four pair wire)	2	no.		
b)	Wiring for <b>Telephone points</b> with 2 pair 0.61 mm Taped Copper wire with PVC pipe with 2 pin Telephone outlet (Anchor Roma) in modular type cover.(Please note that this TELEPHONE wiring is to done from MDF to Cabin and counter location with minium two pair wire)	8	no.		
c)	<b>Lockable MDF (50 Pair)</b> for Telephone/Lease & ISDN line . This MDF must be installed at the Branch entrance location and all the telephone line should start from this MDF.	1	JOB		
<b>8</b>	<b>UPS POINT WIRING</b>				
a)	Wiring for UPS points with 2x2.50 +1x1.5 sqmm PVC insulated copper conductor wire of 650/1100 volts grade with required earth wire with concealed / exposed PVC pipe, including making all the connections, including cutting chases and making good the surfaces wherever required.including the cost of computer socket board,with 3nos 5Amp 5 pin sockets with1no. 5Amp switch 1no.fuse and 1 no. light indicator with modular swithboard. ( <b>max. two points on each circuit, Circuit shall not be paid extra, However cash cabin point &amp; Router point should be indепенently fed from single SPMCB of UPS DB</b> )	15	no.		
b)	UPSDB: 8 way Double-Door SPN Distribution Board for UPS supply comprising of : 32 Amps DPMCB - 1 Nos. for UPS output 6/10 Amps SPMCB - 6 Nos.	2	no.		
c)	UPS INPUT /OUTPUT 32 Amps DPMCB with box for UPS input / output	2	no.		
<b>9</b>	<b>EARTHING</b>				
a)	<b>COPPER PLATE EARTHING:</b> Supply, Assembling installing, Testing and commissioning all the items for constructing copper plate earthing station comprises of one no. copper earthing plate 600 x 600 x 3 mm thick, 25 mm dia medium class GI Watering pipe (minimum 4.5 mm deep) GI funnel with stainless steel wire mesh strainer, concrete watering chamber with RCC to cover up the watering pit, 100 kgs of common salt, 200kgs of fire charcoal powder, earthing conductor size 25mm x 3mm from the plate to the ground level as per the revised IS 3043 standard, required hardware & miscellaneous items. The work involves digging pit in the soil, burying the earth conductor plate, installing the watering	1	no.		
	pipe, back filling the soil and constructing the water pit.(FOR UPS & ATM MACHINE BODY AND UPS SOCKET/ POINT WIRING ONLY)				
b)	<b>GI PLATE EARTHING</b> ;Supply, Assembling installing, Testing and commissioning all the items for constructing GI plate earthing station comprises of one no. GI earthing plate 600 x 600 x 6 mm thick, 25 mm dia medium class GI Watering pipe (minimum 4.5 mm deep) GI funnel with stainless steel wire mesh strainer, concrete watering chamber with RCC to cover up the watering pit, 100 kgs of common salt, 200kgs of fire charcoal powder, earthing conductor size 25mm x 3mm from the plate to the ground level as per the revised IS 3043 standard, required hardware & miscellaneous items. The work involves digging pit in the soil, burying the earth conductor plate, installing the watering pipe, back filling the soil and constructing the water pit.( <b>FOR MAIN PANEL BOARD, FOR UPS NEUTRAL GROUNDING, LIGHTING &amp; POWER CIRCUIT EARTHING</b> )	1	no.		

c)	EARTHING CONDUCTORS: Wiring with 1x10sqmm PVC insulated copper conductor wire of 650/1100 volts grade ( FINOLEX make flame guard Quality) as earth wire with concealed/ CONCEALED PVC pipe including making all the connections. (Please Note that this earth wire from copper earthing point should terminate to UPS distribution panel and it should be connected to earth point of UPS socket only & earth wire from GI Plate earthing should terminate to Main electricity panel & UPS NEUTRAL EARTHING) In no case UPS neutral earthing( to be connected to GI earthing) and UPS point wiring earthing(to be connected to GI earthing) should be common. Due to this UPS neutral should be earthed to GI earthing however for UPS piont wiring only Copper earthing to be used.	50	MTR		
	TOTAL				