

**BILL OF QUANTITY FOR ELECTRICAL WORKS  
AT INDIAN BANK, JHANSI BRANCH  
FOR BRANCH ONLY**

S.NO.	PARTICULARS	Unit	Qty.	Rate	Amount
	<b>A - Light, Fan, 16A &amp; 6A points</b>				
	<b>For GF - All switch &amp; sockets shall be modular type complete with cover plate &amp; GI/ MS box.</b>				
	<b>For Basement - All switch &amp; sockets shall be Piano Type c/w with Sun Mica sheet &amp; GI/ MS box.</b>				
	The work shall also include cutting chase for conduits in the wall/ floor (Without damaging the building/wall) along with clamping the conduit at every 750mm interval & finally finishing the surface & matching the same with the existing surface. (Items 1, 3, 4 & 5)				
	The rate should include the cost of all materials, labour, T&P, taxes & levies, scaffolding, shifting of furniture, carting away the debris and cleaning the floor etc.				
	<u>For Ground Floor</u>				
1	Point Wiring for light, fan & exhaust fan points controlled thru modular switches c/w boxes & cover plate - S/F of light, fan & exhaust fan points controlled thru 6A modular type switch with 3x1.5 sq.mm Fire Resistant Low smoke Halogen (FRLSH) Copper stranded PVC insulated wires (with proper R,Y,B color code) in 20mm OD PVC medium duty conduit pipe concealed in wall/ floor/ panelling/ partitions or on the ceiling as per requirement. The job shall be complete & to the entire satisfaction of the Bank.	Point	59.00		
2	6 A switch socket points on Sdb: S/F of 6A switch with 6A modular socket c/w MS box, sheet etc. The connections shall be made with 3 x 1.5sq.mm FRLSH stranded Cu. Wires as per requirement. The job shall be complete & to the entire satisfaction of the Bank	Point	11.00		
3	Circuit Wiring ( Light, fan, 6Amps Switch points) : Supply & laying of circuit wiring for light, Fan, Exhaust fan & 6 Amp. Switch points with 3x 1.5sq.mm FRLSH Cu stranded wires laid in 20mm OD PVC heavy duty conduit pipe concealed in wall/ floor/ panelling/ partitions or on the ceiling as per requirement. The job shall be complete & to the entire satisfaction of the Bank.	m	174.00		
	<u>Power Point Wiring</u>				
7	Circuit Wiring for Single 6/16Amps power Points) : Supply & laying of circuit wiring for 6/16 Amp. Switch points with 2 x2.5 + 1x 1.5sq.mm FRLSH Cu stranded wires laid in 20mm OD PVC medium duty conduit pipe concealed in wall/ floor/ panelling/ partitions as per requirement. The job shall be complete & to the entire satisfaction of the Bank.	m	65.00		
	5 ckts - 1 on cash and 4 on running counter)				
8	Circuit Wiring for twin 6/16Amps power Points: Supply & laying of circuit wiring for twin 6/16 Amp. Switch points with 2x 4.0 + 1x 1.5sq.mm FRLSH Cu stranded wires laid in 20mm OD heavy duty PVC conduit pipe concealed in wall/ floor/ panelling/ partitions as per requirement. The job shall be complete & to the entire satisfaction of the Bank. 2nd PP to be inter looped with first PP with 2x1.5 + 1x1.5 sq.mm FRLSH Cu stranded wires.	m	38.00		

9	Supply & fixing of 16A modular switch along with 16A twin socket power plug points complete with box & cover plate etc as per requirement. The work shall also include making of connections, cutting chase for conduits and moulded boxes, if required, in the wall/ floor (Without damaging the building/wall) & finally finishing the surface & matching the same with the existing surface. The job shall be complete & to the entire satisfaction of the Bank.	Each	11.00		
	<b><u>B - AIR CONDITIONING</u></b>				
	The work shall also include cutting chase for conduits in the wall/ floor (Without damaging the building/wall) along with clamping the conduit at every 750mm interval & finally finishing the surface & matching the same with the existing surface. (Item 1)				
1	Circuit wiring for AC -Circuit wiring with 2x 4.0 + 1x 1.5sq.mm FRLSH Cu stranded wires laid in 20mm OD medium duty PVC conduit pipe concealed in wall/ floor/ panelling/ partitions as per requirement. The job shall be complete & to the entire satisfaction of the Bank	m	98.00		
2	AC Boxes - Supply & Fixing of 1P 20A 2P MCB industrial plug & socket IP 20 with provision for MCB Siemens 8GB0501SRC or equivalent c/w 25A 2P MCB. The rate should include the cost of all materials, labour, T&P, taxes & levies etc. The job shall be complete & to the entire satisfaction of the Bank.	Each	5.00		
3	Supply & fixing of Flush mounted 4 way VTPN Db IP - 42 double door complete with 63A 3P MCB as incomer & 4nos. 32A 1P MCB's complete in all respects. Siemens -8GB0404VRC - Siemens/ L&T/ MDS/ Schnider. <b>The Manager AC shall be thru L&amp;F/ PP Db</b>	Each	1.00		
	<b><u>C - DISTRIBUTION MAINS</u></b>				
1	S/F of 3 nos.100Amp 415V Kit kats rewirable porcelain fuse carrier & base Havells IHKKRN4100 c/w 5 hole heavy duty terminals with shroud & cover including making of connection from electronic meter c/w wooden board etc.	Set	1.00		
2	Supply, Installation, Testing & commissioning of Main L T panel fabricated from CRCA sheet 1.8mm dust proof, vermin proof as under - All switchgears to be of Siemens/ ABB/ L& T.	Set	1.00		
	Incomer - 100A 3P MCCB 25Ka with adjustable thermal & Magnetic trip unit				
	Changeover TPN 100A- ABB / socomac				
	<b>OUTGOINGS -</b>				
	63Amp 3P MCB - 2no. - 10kA for LHS & RHS VTPN Db				
	63Amp 3P MCB - 1no. - 10kA for AC (to be tapped directly & there shall be no supply to AC Db from DG set)				
	63Amp 3P MCB - 1no. - 10kA for A.T.M.				
	63A 3P MCB - 2no. for UPS 1 & 2 -10kA				
	63Amp 3P MCB - 1nos. Spare -10kA				
	32Amp -2P MCB 4 nos. - Strong Room, Sign Board, Fire alarm & spare				
	Bus Bar - 100Amp c/w Ammeter & its selector switch, voltmeter & its selector switch, Indication lamps etc.				
	Cable entry from top & bottom - removable gland plates (bottom at 2 points) c/w powder coated Grey paint (two coats) with name labels for all incoming & outgoing feeders. The panel shall be complete in all respects including all accessories such as earthing bus, Air ventilators, lifting hooks etc.				
3	S/ laying of XLPE insulated armoured Cu Conductor cable including cost of lugs, cable glands etc. The cable should be laid on surface with proper clamps @750mm or laid & concealed in wall/ floor/ PVC Conduit/ false ceiling complete in all respect. The work also includes cutting chases for conduits in the wall/ floor (Without damaging the building) along with clamping the cable.				
	4c x 16sq.mm for Pole & fuse Kit Kats	m	6.00		
	4c x 10sq.mm for AC VTPN Db	m	16.00		
	4cx6sq.mm for L&F and PP VTPN Db	m	35.00		
	4cx6sq.mm for UPS 1 & UPS 2	m	28.00		

4	Supply & fixing of Flush mounted VTPN Db IP - 42 double door complete in all respects. Siemens/ L&T/ MDS/ Schnider (The load shall be distributed equally on all phases)				
4.1	RHS 4way VTPN Db - Location Rhs wall opposite cash cabin - Siemens 8GB0404VRC or equivalent	Each	1.00		
	Incoming - 415V 63A 3P MCB -10kA				
	OUTGOINGS				
	2 Nos. 16A 1P MCB 10kA for single PP - for 1 pp on cash and 1 pp officer attached with cash				
	5Nos. 10A 1P MCB 10kA for L & F				
	4 Nos. 6A 1P MCB 10kA for L & F				
	Blanking plate- 1 No.				
	All connection thru lugs				
4.2	LHS - MR AC, PP and L & F - 6way VTPN Db's IP 42 - Siemens 8GB0406 VRC (Location LHS wall)	Each	1.00		
	Incoming - 415V 63A 3P MCB -10kA				
	OUTGOINGS				
	1no. 32A 1P MCB 10kA - for MR AC				
	3No. 20A 1P MCB 10kA for twin PP- (1 Manager, 1server & 1 for pantry)				
	3 Nos. 16A 1P MCB 10kA for single PP - 3 pp on running counter of left hand side				
	4Nos. 10A 1P MCB 10kA for L & F				
	4Nos. 6A 1P MCB 10kA for L & F				
	3 no. Blanking plate				
	All connection thru lugs				
5	Strong room controlling DP MCB - Circuit wiring with 2 x 2.5+ 1 x 1.5 sq.mm stranded Cu. conductor (Finolex/Anchor/Skytone) to be laid in 20 mm OD PVC conduit medium laid & concealed in wall/ floor/ panelling/ partitions or above false ceiling as per requirement. The job also includes supply & fixing of 32A 2P MCB in 2way box including connections with lugs. The rate should include the cost of all materials, labour, T&P, taxes & levies, scaffolding, shifting of furniture, carting away the debris and cleaning the floor etc.The job shall be complete & to the entire satisfaction of the Bank.	Job	1.00		
6	Glow sign Board - Circuit wiring with 2x2.5sq.mm + 1x 1.0sq.mm stranded Cu. conductor (Finolex/Anchor/Skytone) to be laid in 20mm OD PVC pipe medium duty laid & concealed in wall/ floor/ panelling/ partitions or above false ceiling as per requirement. The rates should include the cost of all materials, labour, T&P, taxes & levies, scaffolding, shifting of furniture, carting away the debris and cleaning the floor etc.The job shall be complete & to the entire satisfaction of the Bank.	m	13.00		
	D - DG SET SUPPLY				
1	S/laying of 4cx16sq.mm XLPE insulated Copper conductor armoured cable from proposed DG set to Changeover switch including its connections at both ends to be laid in rigid PVC /flexible conduit	m	15.00		
	E- EARTHING				
1	Panel/ Power earthing - S/burying of Dual pipe technology (Pipe in Pipe) earthing electrode having GI 80mm O/D pipe with 25 micron coating, 3metres long. The space between two pipes to be filled with Highly conductive & Non corrosive chemical compound. The vacant space between pipe & hole shall also be filled with compound all around. The job also includes S/F of GI strip clamp with two holes (with SS/GI bolts & nuts) on the electrode & taking two earthing leads of 4mm dia copper wire (Assumed length of 10m - beyond 10m to be paid extra) upto Main panel complete in all respects with guaranteed E/N voltage of less than 2 volts and resistance less than 1 ohms.	Job	1.00		
2	Supply & Fixing of 4mm dia Cu. wire on surface or in recess for loop earthing as required earthing to Db's or main panel.if required beyond 10m	Per M.	22.00		
	F - SUPPLY & FIXING ITEMS				

1	S/F of Energy efficient recessed mounted LED luminaire - GreenSquare, profiled recess mounted luminaire, energy efficient with longer life, resulting in lower operational cost Philips - RC170B LED29S-6500 PSE WH 220-240V 50Hz or equivalent Wipro/ Crompton Greaves or any other make approved by Bank/ architect	Each	15.00		
2	S/F of recessed LED downlighter - Recessed mounted LED down lights Philips BBS170 1xDLED -5000 PSU WH complete in all respects or equivalent Wipro/ Crompton Greaves or any other make approved by Bank/ architect	Each	11.00		
5	S/F of Surface & wall mounted LED batten with extruded aluminum housing and robust construction. Philips Astra - BN150W LED20S-6500 PSE OD GR or any other equivalent make approved by Bank/ Architect	Each	7.00		
6	S/F of 1x36watts Fluorescent Tube light surface mounted fitting c/w cost of 1x36w fluorscent tube light - Phillips -TARANG ELECTRONIC 4' TMC090 1xTLD36W HF (HPF Batten) complete in all respects	Each	18.00		
7	S/F of angle holder for bulbs including cost of 7w Led bulb - Philips - myVision 7W B22 6500K A60 IND	Each	2.00		
8	S/F of wall mounted fan 400mm sweep - Havells Palatina model or equivalent Bajaj / Crompton/ Alstom/ Usha	Each	7.00		
9	S/F of ceiling fan 1200mm sweep double ball bearing type - Havells Velocity/ Velocity HS or Equivalent Bajaj / Crompton/ Alstom/ Usha	Each	2.00		
9a	S/F of electronic modular regulator Anchor 22546 - Fan step regulator Tiny EME 100w	Each	2.00		
10	Supply & Fixing of fresh air fan 12" - Havells venti Air DSP metallic range model or equivalent Bajaj / Crompton/ Alstom/ Usha	Each	3.00		
<b>G - TELEPHONE CABLING</b>					
1	Supply & fixing on wall/ furniture/ partition recessed type modular telephone jack single without shutter outlet RJ-11 c/w mounting box & front plate. The job includes chase cutting, mending good etc. as required includinhg Supply & laying of 2 pair unarmoured 0.61mm dia. PVC insulated twisted pairs bunched together telephone cables through rigid 20mm OD PVC medium duty conduit pipe as directed by the Bank/ Architect from telephone junction box to telephone socket outlet including interconnection mending good etc. as required complete in all respects.	Each	4.00		
3	Supply & fixing of 10 pair Crone boxes	Each	1.00		
<b>Total for Electrical w/o UPS &amp; Data</b>					
<b>UPS POWER STATIONS WIRING, SPECIFICATIONS AND BILL OF QUANTITY</b>					
<b>Alternate Computer points shall be connected to UPS1 &amp; UPS 2.</b>					
<b>For Manager Room &amp; server room- one point shall be from UPS 1 &amp; other from UPS 2. It shall have 4nos. 6A switches in computer power station.</b>					
<b>For note counting - computer power station shall have 4nos. 6A switches</b>					
<b>For server switch - computer power station shall have 3nos. Power points.</b>					
<b>FOR UPS -1</b>					
1	Supply & Fixing of 32A 4P MCB in a 4way SPN Db IP-20 Metallic directly on wall for UPS -1 complete in all respects	Nos.	1.00		
2	Supply & Fixing of 63A 3phase rotary switch heavy duty including all connections thru lugs complete in all respects to the entire satisfaction of the bank.	Nos.	1.00		

3	Supply & Fixing of 40A 2P MCB in 2way SPN Db IP 20 metallic directly on wall for UPS Incoming & outgoing supply (1 for incoming & 1 for outgoing for UPS)	Nos.	2.00		
4	Supply & running the following size of 660V grade, Finolex brand PVC insulated, multi stranded Cu conductor in suitable size of MS conduit on wall/ wooden partitions under the floor as per site requirements in the case of running the conduit under the flooring or concealed in the wall. The flooring/ wall shall be neatly finished with cement mortar.				
	3 runs of 2.5sq.mm UPS Db's to power stations of 3 plug each (As explained in Item -1) to be connected to each circuit	m	78.00		
	2 runs of 6.0sq.mm with one run of 2.5sq.mm As explained in Item - 6 from change over switch to Db for individual Power station through phase selector & UPS	m	9.00		
	2 runs of 4.0sq.mm with one run of 1.5sq.mm for connections of UPS Incomer & UPS Outgoing in PVC flexible conduit + Supply from UPS to UPS Db -1	m	15.00		
	2 runs of 4.0sq.mm with one run of 1.5sq.mm for UPS controlled power point strip for server switch in MS conduit	m	12.00		
5	Supply & fixing of computer power stations				
	6A 5Pin 3nos. sockets surround controlled by 1no. 16A switch & 3nos. apertures with blank plugs - Schnider Clipsal office wonder for work station (H2015/ 6E4X - WE) complete in all respects. The box shall be fixed on wall or Partition (wooden) concealed or open as required at site. (For cash, S/w and Counter)	Nos.	3.00		
	Manager Cabin & Server Room- 6A 5Pin 4nos. sockets surround controlled by 1no. 16A switch & 2nos. apertures with blank plugs - Schnider Clipsal office wonder for work station (H2015/ 6E4X - WE) complete in all respects. The box shall be fixed on wall or Partition (wooden) concealed or open as required at site.	Nos.	2.00		
	Server switch - 13A multi pin 3nos. sockets surround controlled by 1no. 16A switch & 3nos. apertures with blank plugs - Schnider Clipsal office wonder for work station (AAKH2015/ 13E4X - WE) complete in all respects. The box shall be fixed on wall or Partition (wooden) concealed or open as required at site. (0 no. for ATM + 1 no. for server switch)	Nos.	1.00		
6	Supply & Fixing of 12way SPN Db double door IP - 43 with 5nos.10A 1P +1no.16A 1P MCB's (10kA rapturing capacity) controlled thru 40A 2P MCB fixed on the wall or concealed with necessary adopter box on out going side to facilitate for terminating the 6nos. conduits with necessary holes. The distribution board & MCB's should be of the same make - "Make - STANDARD"/ Siemens	Nos.	1.00		
	FOR UPS -2				
1	Supply & Fixing of 32A 4P MCB in a 4way SPN Db IP-20 Metallic directly on wall for UPS -1 complete in all respects	Nos.	1.00		
2	Supply & Fixing of 63A 3phase rotary switch heavy duty including all connections thru lugs complete in all respects to the entire satisfaction of the bank.	Nos.	1.00		
3	Supply & Fixing of 40A 2P MCB in 2way SPN Db IP 20 metallic directly on wall for UPS Incoming & outgoing supply (1 for incoming & 1 for outgoing for UPS)	Nos.	2.00		

4	Supply & running the following size of 660V grade, Finolex brand PVC insulated, multi stranded Cu conductor in suitable size of MS conduit on wall/ wooden partitions under the floor as per site requirements in the case of running the conduit under the flooring or concealed in the wall. The flooring/ wall shall be neatly finished with cement mortar.				
	3 runs of 2.5sq.mm UPS Db's to power stations of 3 plug each (As explained in Item -1) to be connected to each circuit	m	78.00		
	2 runs of 6.0sq.mm with one run of 2.5sq.mm As explained in Item - 6 from change over switch to Db for individual Power station through phase selector & UPS	m	9.00		
	2 runs of 4.0sq.mm with one run of 1.5sq.mm for connections of UPS Incomer & UPS Outgoing in PVC flexible conduit + Supply from UPS to UPS Db -2	m	15.00		
	2 runs of 4.0sq.mm with one run of 1.5sq.mm for UPS controlled power point strip for server switch in MS conduit	m	12.00		
5	Supply & fixing of computer power stations				
	6A 5Pin 3nos. sockets surround controlled by 1no. 16A switch & 3nos. apertures with blank plugs - Schnider Clipsal office wonder for work station (H2015/ 6E4X - WE) complete in all respects. The box shall be fixed on wall or Partition (wooden) concealed or open as required at site. (4nos. for officer cash, rear, Counter & advance)	Nos.	2.00		
	Manager Cabin & Server Room - 6A 5Pin 4nos. sockets surround controlled by 1no. 16A switch & 2nos. apertures with blank plugs - Schnider Clipsal office wonder for work station (H2015/ 6E4X - WE) complete in all respects. The box shall be fixed on wall or Partition (wooden) concealed or open as required at site.	Nos.	2.00		
	Server switch - 13A multi pin 3nos. sockets surround controlled by 1no. 16A switch & 3nos. apertures with blank plugs - Schnider Clipsal office wonder for work station (AAKH2015/ 13E4X - WE) complete in all respects. The box shall be fixed on wall or Partition (wooden) concealed or open as required at site. (0 no. for ATM + 1no. for server switch)	Nos.	1.00		
6	Supply & Fixing of 8 way SPN Db double door IP - 43 with 4nos.10A 1P +1no.16A 1P MCB's (10kA rupturing capacity) controlled thru 40A 2P MCB fixed on the wall or concealed with necessary adopter box on out going side to facilitate for terminating the 6nos. conduits with necessary holes. The distribution board & MCB's should be of the same make - "Make - STANDARD"/ Siemens	Nos.	1.00		
	<b>COMMON FOR BOTH UPS 1 &amp; 2</b>				
1	UPS earthing - S/burying of Dual pipe technology (Pipe in Pipe) earthing electrode having GI 80mm O/D pipe with 25 micron coating, 3metres long. The space between two pipes to be filled with Highly conductive & Non corrosive chemical compound. The vacant space between pipe & hole shall also be filled with compound all around. The job also includes S/F of GI strip clamp with two holes (with SS/GI bolts & nuts) on the electrode & taking two earthing leads of 4mm dia copper wire (Assumed length of 10m - beyond 10m to be paid extra) upto Main panel complete in all respects with guaranteed E/N voltage of less than 2 volts and resistance less than 1 ohms. The 4mm dia Cu. earth wire shall be terminated on a separate 6way earthlink. The connections for Panel earthing & earth bus in the panel should be taken from this earthlink.	Job	1.00		
2	Supply & Fixing of 4mm dia Cu. wire on surface or in recess for loop earthing as required earthing to Db's or main panel.if required beyond 10m	Per M.	25.00		
3	S/F of G I Strip earth clamp	Each	1.00		

4	Supply & Fixing of 63A 3 phase 2way fused Db (Anchor/ Stanadard/ equivalent brand)	Nos.			
5	Supply & Fixing of 63A TPN SFU with HRC fuses on suitable angle iron frame Havells IHCSFE0063	Nos.	1.00		
6	Supply & Fixing of 40 Amp. manual three phase changeover switch (Sielzer make or any other equivalent brand)	Nos.	2.00		
7	Supply & Fixing of 63A TP MCB in a MS box directly on wall for 3P UPS	Nos.	0.00		
	Total				
	<b>Total Estimate for UPS work</b>				
<b>DATA/ MOLEX/ AMP</b>					
	<b>Each Data point shall have 2nos. Information outlets</b>				
	<b>Each information outlet shall be fed from separate Cat 6e cable.</b>				
	<b>Distance between data pipe/ PVC channel &amp; power pipe shall be 300mm &amp; above.</b>				
1	Information outlet per number with face plate and base box- Supply & Fixing of XL RJ 45 toolless information outlet Grey colour cat 6e Giga speed Systimax/ D link make including interconnection with single connectors as required complete in all respects.	Nos.	18.00		
2	Patchmax Panel # 24 Ports - Supply & fixing of 24 Port Cat 6e Patch Panel/ Jack panel D - Link/ systimex fully loaded in the rack to be provided by purchaser complete in all respect to the entire satisfaction of the Bank.	Nos.	1.00		
3	Patch Chord - 1metre - Supply & fixing of 1 metre length Grey colour Patch chord Giga speed Systimax/ D link make for connections to nodes	Nos.	9.00		
4	Patch Chord - 2 metres - Supply & fixing of 2metre length Grey colour Patch chord Giga speed Systimax/ D link make for making connections between patch panel & switch thru cable manager	Nos.	9.00		
5	UTP cable (ECAT # 6) - Supply & laying of CAT - 6e cables Giga speed D -Link/ Systimex make through pre-laid rigid PVC conduit/channel as directed by the consultant from Server to Switch, Switch to computer data socket including interconnection with connectors as required complete in all respects. The data cabling pipe/channel should be laid at a minimum distance of 3ft from pipes laid down for power distribution.	m	275.00		
6	Switch 24 Port - D Link/ systimex	Nos.	1.00		
7	PVC Channel Flat 1.5mm and above (Make - Modi) 1" size	m	75.00		
8	12U, 19", 450mmD x300mmW closed wall mount MS 18/20swg powder coated rack with glass door opening in the front with power panel, cable manager & lock & key (Universal make)	Nos.	1.00		
	Total for Data/ LAN Cabling				
	<b>Total Estimate for Data/ LAN wiring</b>				
<b>Summary of estimate for Electrical, UPS &amp; Data work for the Branch</b>					
	Cost of Electrical works				
	Cost of UPS Related works				

	Cost of Data /LAN wiring				
	<b>TOTAL ESTIMATE FOR ELECTRICAL, UPS &amp; DATA</b>				
	<b>The items given in this BOQ are provisional. The vendor shall be paid for the actual work executed at the rates tendered. The Bank reserves the right to increase or decrease any of the quantities, or to ommit totally any item of work. Any claim by the vendor on these accounts will not be entertained.</b>				
	All the items of work given in this BOQ of quantities shall be executed strictly in accordance with the latest Indian Standard Specifications and the requirements of the Electricity Supply Authority & read in conjunction with the relevant drawings and Specifications enclosed with package.				
	<b>All electrical items body earthing connections to be made properly &amp; checked throughly.</b>				
	All cable connections to be properly terminated thru lugs.				
Note:The Contractors should quote the rates without G.S.T. No Tender shall be accepted which claims the rates including G.S.T.					