

## SANKALPA ASSOCIATES

Architects & Interior Designers

1001, Eleven Heights, Sant Gora Kumbhar Marg, Kumbharwada, Dharavi, Mumbai 400 017, Mobile: 9869031498

<b>BOQ OF ELECTRIC WORK FOR PEN BRANCH OF CANARA BANK</b>				
No.	Description	Quantity	Rate	Amount
<b>I MAIN LT PANEL /DBs</b>				
1	Supply and installation of main LT panel, wall mounted front operated totally enclosed vermin proof, indoor non-drawout-cubicle type power panel fabricated out of 2mm thk CRCA sheet having gasketed hinged cover on each cubicle fully powder coated after 7 Tank treatment, incorporating horizontal and vertical sleeved copper busbars, complete with all internal wiring, danger board, 2 earthing legs, cable chamber etc as required, housing below mentioned switch gears / meter (GA drawing of the panel got to be approved by Bank / Architect)			
a	1No., 100A, FP, Changeover Switch + 1 no. , 100A, TP, MCCB with ELR(0-3A) and CBCT as Incomer			
b	2 nos. 40A TPN & 4 nos. 40 A DP, MCB, 2 Nos 63 A TPN MCCB outgoing			
c	1 no., 0-125A, Ammeter with CT and selector switch			
d	1no., 0-500V, Voltmeter with selector switch and fuse			
e	1Set, TPN, Copper busbars of size 20mm x 5mm thk PVC insulated suitable for 125 Amp load			
f	1 Set, RYB, indicating lamps with resistors and fuses			
	Full Set as above	1	SET	
<b>2 Supply and installation of 4 way, TP&amp;N 'MCB type Distribution Board(double door) flush mounted on wall, sheet metal fabricated, powder coated, having dust-proof and vermin 'proof, gasketed and hinged door with all internals such as DIN rails, neutral-link, interconnected wiring, complete with earthing legs, housing following switch gears ( Double door HORIZONTAL DB) - lighting db</b>				
a	1 no., 40A, TPN, ELCB(100mA) incomer			
b	12 nos, 16A, SP, MCB outgoing			
	Full Set as above	1	SET	
<b>3 Supply and installation of 4 way, TP&amp;N 'MCB type Distribution Board(double door) flush mounted on wall, sheet metal fabricated, powder coated, having dust-proof and vermin 'proof, gasketed and hinged door with all internals such as DIN rails, neutral-link, interconnected wiring, complete with earthing legs, housing following switch gears ( Double door VERTICAL DB) - power db</b>				
a	1 no., 63A, TPN, MCCB incomer			
b	12 nos, 25A, SP, MCB outgoing			
	Full Set as above	1	SET	
<b>4 S &amp; I of SPN, DB for distribution of input power to UPSs as per SLD having below mentioned switchgears (Earth bar inside these DB should be insulated from the body) (UPS-INPUT &amp; ATM Room- HORIZONTAL DB)</b>				
a	1 no, 40A, DP, Isolator incomer			
b	3 Nos. 40A, DP, MCB, outgoing			
	Full Set as above	2	SET	
<b>5 S &amp; I of SPN, DB for distribution to all computer power points on workstations, having below mentioned switchgears (Earth bar inside these DB should be insulated from the body) (UPS-OUTPUT-DB)</b>				
a	1 no, 63 A, SPN, MCB, incomer			
b	6nos, 16A, SP, MCB, outgoing			
	Full Set as above	2	SET	

6	<b>A.C. point wiring:</b> Supply, installation, testing & commissioning of A.C. point wiring from MCB DB to A.C. point with <b>2 nos. 4 sq.mm. PVC insulated copper earth FRLS copper wire and 1 no. 2.5sq.mm. PVC insulated FRLS wire</b> (with proper R,Y,B color code ) pulled through heavy gauge PVC conduits laid concealed over false ceiling or in wall chases including circuit wires. Rate shall include Supply & installation of <b>1 No of 25A industrial socket and plug top &amp; controlling MCB</b> and all related accessories. (Rate to include supply & installation of PVC conduits of required size generally as per the drawing.( For split Acs)	3	Nos.		
7	S & I of 125A, MCCB in sheet metal enclosure for main switch at meter cabin complete in all respects.	1	Nos.		
8	Supply and installation of <b>25 KVAR Microprocessor controlled APFC panel</b> , floor/wall mounted front operated totally enclosed vermin proof, indoor non-drawout-cubicle type power panel fabricated out of 2mm thk CRCA sheet having gasketed hinged cover on each cubicle fully powder coated with following accessories	1	SET		
a	1No.100A,TP, MCCB as incomer				
b	2 nos. of 40A 3P contactor & 1 no. 25A 3P contactor				
c	2 nos. 40A MCB & 1 no. 25A MCB				
d	2 nos. 10KVAR & 1 nos of 5 KVAR Capacitor of EPCOS Make only				
e	Suitable bus bar for connecting the contactors and MCB's, Capacitors				
f	1 no. 3 step APFC relay suitable for above arrangement				
g	ON/OFF/TRIP push button for each capacitor				
h	ON/OFF/TRIP indication lamp for each capacitor				
i	1 Set, RYB, indicating LED lamps with resistors and fuses for incomer.				
	Full Set as above				
9	15 AMP Three Pin Top	4	Nos.		
10	63 amp 4 POL MCB + MS BOX	2	Nos.		
11	63 amp 4 POL MCB + MS BOX for outdoor units	4	Nos.		
<b>Sub Total</b>					
<b>II CABELS / MAINS</b>					
1	S & I of 1100V grade armoured cable having sector / circular shaped aluminium / copper conductor PVC insulated cores, laid up, PVC tape wrapped inner sheathed, GI strip / wire armoured and overall extruded PVC sheathed conforming to IS: 1554, laid on wall or ceiling using GI clamps and spacers as per route shown at site and further as directed by Bank / Architect in the following sizes including S & I of end termination of above mentioned cables including compressed type brass glands, crimping type copper lugs, insulation tape etc. as 'required complete with earthing of glands in following sizes.				
a	4C x 16 Sq.mm Copper	15	Mtr.		
b	4C x 6 Sq.mm Copper	20	Mtr.		
c	3C x 4 Sq.mm Copper	125	Mtr.		
d	2Cx 10Sq.mm Copper	20	Mtr.		
<b>Sub Total</b>					
<b>III WIRING</b>					
1	Supply & Installation of Light/Fan <b>point wiring</b> with 3 x 1.5 Sqmm wire & <b>Circuit Wiring</b> of 1100v grade 2 x 2.5 sqmm & 1 x 1.5 sqmm copper conductor PVC insulated wires (with proper R,Y,B color code) pulled through heavy gauge PVC conduits laid concealed over false ceiling or in wall chases including circuit wires. Rate shall include Supply & installation of Modular Switch Boards, Modular Switches/sockets, boxes, plates and all related accessories. <b>(Rate to include supply &amp; installation of PVC conduits of required size) 6 Lights in one circuit, 4 Raw /Fan point in one circuit)</b>				
a	Primary light points including the cost of 5A switch	80	Pts.		
b	Secondary light points looped from the above point	20	Pts.		

c	5A plug point as primary point	10	Pts.		
d	Secondary 5A Plug point on switch board	10	Pts.		
e	<b>Power point wiring: Supply, installation, testing &amp; commissioning of power point wiring from D.B.s to power points</b> with 2 No.4sq.mm. PVC insulated FRLS copper wires (with proper R,Y,B color code ) pulled through heavy gauge PVC conduits laid concealed over false ceiling or in wall chases including circuit wires. Rate shall include Supply & installation of Modular Switch Boards, Modular Switches/scokeys, boxes, plates and all related accessories. (Rate to include supply & installation of PVC conduits of required size generally as per the drawing. for <b>hotplate/geyser / zerox / fridge (With Circuit wiring specifications)</b> )	10	Pts.		
f	Exhaust fan point consisting of 5A socket near fan and switch on light switch board	3	Pts.		
g	Wiring for Signages with 2R x 2.5 Sq.mm and 1R x 1.5 Sq.mm, PVC insulated copper conductor flexible cable to be connected to the SPN D/D consumer unit installed near rolling shutter outside the Branch	2	SET		
h	S & I of point wiring for UPS or stabilized power plug points on workstations / table for computers using 3C X 2.5 Sq.mm Cu. PVC sheathed white color flexible cable <b>pulled through above False ceiling and cutting the walls as raceways are not provided</b> and taken upto table top using PVC rigid or flexible conduits run within wooden or metal partitions. Each point consisting of 3 Nos of 2 / 3 Pin sockets and 1 No 15A switch, wired together forming one point. Switches and sockets to be (ROMA). Earth wire to be of Green colour only. ( Only 2 tables served by one circuit from UPS DB) <b>Cost is inclusive of necessary cutting the walls and including PVC Pipe required for taking the wires.</b>	13	Pts.		
i	S & I of points similar to above but to be used as raw power point on the tables consisting of one 5/15A socket with switch of other color and flexible cable of black color & circuit taken from Lighting DB ( 4 tables served by one circuit from LDB/PDB) <b>Taken Above False ceiling and through walls as raceways are not provided. Cost is inclusive of necessary cutting the walls and including PVC Pipe required for taking the wires.</b>	12	Pts.		
j	S & I of points similar to above but to be used as <b>UPS power point</b> consisting of one 15A socket with 15A switch and flexible cable of black color & circuit taken from UPS DB <b>(Rate to include supply &amp; installation of PVC conduits of required size)</b>	8	Pts.		
<b>Sub Total</b>					
<b>IV FLOOR -RACEWAYS:</b>					
1	S & I of floor - raceways consisting of 2 Nos of 3" x 1.5"x 3mm thick rectangular aluminium anodized box sections including chasing and refilling as per the route shown in the drawing and as approved by consultant at site including clamping at every open pipe ends by suitable plastic end covers against entry of dust or anyother foreign material.	35	Mtr.		
2	S & I of galvanised floor junction boxes with SS brushed finish 14 SWG ( 2mm Thick) cover properly fixed with screws, for above mentioned raceways , of size 300mm x 300mm x 2.5 mm depth, fabricated out of 2.5 mm thick G.I. sheet with proper cutouts on the sides for pipe entry & screwed top cover with rubber gasket and suitable knockouts for flexible conduit outlets as per the drawing enclosed.	8	Nos.		
<b>Sub Total</b>					
<b>V FITTINGS &amp; FIXTURES</b>					
1	S & I of lighting fixtures as per the details given below including necessary hardware such as clamps,nuts, bolts, nails, screws and suspension chains as required for fixing the fixtures in position as directed by architect / Consultant.				
a	<b>600 X 600 LED LIGHT FITTING</b> SITC of 36 W LED light fixtue Philips Green Square 1 or SYSKA or As Selected By Bank (Philips Catalog No - RC370 LED 29S-6500 PSEWH OR EQUIVALENT )	26	Nos.		

b	1 X 18W LED 4 ft Tubelight with all fittings. (make- Philips/Havells/syska)	25	Nos.		
c	1 X 12W LED 2 ftTubelight with all fittings. (make- Philips/Havells/syska)	2	Nos.		
d	<b>LED LIGHT FITTING - Down lighter</b> SITC of Philips/ wipro or SYSKA make Green LED down lighter fitting (Catelog No - BBS175 1xDLED-5000 PSUWH OR EQUIVALENT)	20	Nos.		
e	LED picture light fitting	4	Nos.		
f	250mm dia wall mounted exhaust fan of decorative plastic body and blade with louvers on the outside (Newtek/Cromton/Approved Equivalent)	3	Nos.		
g	Supply, Installation, Testing & Commissioning of LED Rope Light for cove lighting as directed etc. complete.	65	Mtr.		
h	Supply, Installation, Testing & Commissioning of 48" ceiling type fans 230V Single phase, electronic fan regulator, S type hook, with all accessories. The rate shall include connection with 3 core 1.5 sq.mm. flexible copper cable from point to the ceiling fan.	4	Nos.		
i	Supply, Installation, Testing & Commissioning of wall mounted fan with all accessories. The rate shall include connection with 3 core 1.5 sq.mm. flexible copper cable from point to the fan.	1	Nos.		
<b>Sub Total</b>					
<b>VI EARTHING</b>					
1	S & I of earth pit comprising of 600mm x 600mm x 3mm. thick copper plate buried at a minimum depth of 2.5 meter including necessary materials like charcoal, salt etc as required conforming to BIS standards having brick masonry chamber with hinged cover and watering arrangement.	2	Nos.		
2	<b>S &amp; I of copper /GI earthing wires/strips with PVC Sleeve in following sizes</b>				
a	25mm x 3mm thick GI strip	25	Mtr.		
b	S/I/T/Commissioning of 1 No. of 10 Sq.mm. single core PVC flexible copper wire for UPS in 25mm PVC conduit with all required accessories etc.	25	Mtr.		
3	S & I of isolated earthing / grounding system for computers etc.using insulated green copper earthing wire laid through 20mm PVC conduits from separately made earth pit to the equipment in following sizes				
a	6 sqmm copper in 20mm PVC conduit	40	Mtr.		
<b>Sub Total</b>					
<b>VIII WIRING FOR DATA AND VOICE OUTLETS</b>					
1	Providing and laying Cat 6 cable (Make : Systimax) for data in conduits and providing & terminating with RJ-45 (Krone make) with face plates / I/O Ports in suitable modular / MS box from server / EPABX room to individual work stations and terminating other end with RJ-45 connector including numbering with ferule etc. complete.				
a	RJ-45 for data points (Through wall, false ceiling, raceway)	20	Pts.		
b	Supply and fixing of 24 port patch panel (D-link) complete with crimping	1	Nos.		
d	Supply, installation, commissioning of 12 U rack complete with power point, cooling fan and required accessories.	1	Nos.		
e	Supply and fixing of 1 meter long factory crimped patch cord.	20	Nos.		
f	Supply and fixing of 2 meter long factory crimped patch cord.	20	Nos.		
2	Providing and laying Cat 5 cable (Make: D-Link) for voice in existing conduits for voice and providing & terminating with RJ-11 (Krone make) with face plates / I/O Ports in suitable modular / MS box from server / EPABX room to individual work stations and terminate the other end with RJ-11 connector or on a Crone module with numbering of each cable with Ferule				
a	RJ-11 for Voice (Through wall, false ceiling, raceway)	12	Pts.		
3	Providing, laying and connecting PVC insulated copper telephone cable of following sizes including termination in approved manner.				

a	20-pair	20	Mtr.		
4	Providing and fixing of telephone tag block (Krone) of following sizes housed in GI box with cover of suitable size including termination				
a	20 pair	1	Nos.		
<b>Sub Total</b>					
<b>IX TEMPORARY WIRING</b>					
	Providing light point wiring, data point with computer wiring and temporary lighting arrangement during renovation and disconnection of old wiring systems during disposal	1	job		
<b>TOTAL</b>					
Discount if any					Rs.
<b>NET TOTAL</b>					<b>Rs.</b>
Add 18% GST					Rs.
<b>TOTAL FOR ELECTRICAL WORKS</b>					

NOTE :- Cost inclusive of all taxes other than GST, Transportation, loading, unloading expenses, Excise Duty etc. without any extra charge. The Contractor estimate shall also include MMC / Local Authorities Permission for smooth functioning the work.