

BOQ FOR ELECTRICAL & ALLIED WORKS FOR STATE BANK OF INDIA PACHPAOLI BRANCH,			
S.N.	PARTICULARS	QTY	UNIT
A	MAIN LT PANEL / DB'S		
1	Supply, installation, testing & commissioning of 200A TPN SFU with 200 A HRC fuses 415 V 3 phase & neutral 50 c/s AC23 duty on MS angle iron frame fabricated out of 40 mm. x 40 mm. x 5 mm MS angle duly painted with cable end boxes, earthing, name plate danger board fixing accessories etc. (Schneider / Hager / Siemens / Legrand make as approved by client / consultant)	1	Set
2	MAIN MCCB DB :- Suply and installation of 8-way, VTPN, Double door, (MCCB DB) Main Electrical Power Distribution Board (MPDB), surface / flush mounted on wall, interconnected wiring complete with earthing lugs, including DB wiring dressing with ferruling, termination of circuits / cable with ping type copper lugs, etc. as required housing following switchgears : (Schneider / Hager / Siemens / Legrand make as approved by client / consultant)		
	INCOMER		
	1 No. 200 A, FP, 36kA, MCCB with Thermal Magnetic release, of approved make with over load (O/L), short circuit (S/C) & Earth Fault (E/F) protection. The Breaker shall be suitable for 415 Volts 50 Hz., AC supply. The breaker shall have breaking capacity of 36kA for 1 Sec. as required. (Schneider / Hager / Siemens / Legrand make as approved by client / consultant)		
	1 Set of R,Y,B Phase Indicating lamps / Indicators		
	OUTGOINGS		
	6 Nos., 63/80A, TP, Miniture Circuit Breaker as outgoing (MCB). The MCB shall be suitable for 415Volts 50Hz., AC supply and having fault level of 10KA. The MCB Shall have "C" curve type. (APFC incomer 1 no., LDB+RPDB+ACDB - 1 no.s, 3 TR AC - 1 no., Spare- 1 no.)		
	6 Nos., of 40/32/25 Amps., SP Miniture Circuit Breaker (MCB). The MCB shall be suitable for 415Volts 50Hz., AC supply and having fault level of 10KA. The MCB Shall have "C" curve type. (For Signage - 1 no.s, UPS 1 no., Spare - 4 no.s)		
	Full Set as above	2	Nos
3	Suply and installation of 4-way, TPN, Double Door, Metal type, with Plain / Transperant Door (As approved by client / consultant), Lighting / Raw Power Distribution Board (LDB+RPDB), surface / flush mounted on wall, interconnected wiring complete with earthing lugs, including DB wiring dressing with ferruling, termination of circuits with ping type copper lugs, etc. housing following switchgears : (Schneider / Hager / Siemens / Legrand make as approved by client / consultant)		
a	1 no., 63 / 40A, FP MCB as incomer		
b	12 nos, 10/16/20/25A, SP, MCB outgoing		
	Full Set as above	2	Nos
4	Suply and installation of 10-way, SPN, Double Door, Metal type, with Plain / Transperant Door (As approved by client / consultant / architect), UPS Power Distribution Board (UPS PDB), surface / flush mounted on wall, interconnected wiring complete with earthing lugs, including DB wiring dressing with ferruling, termination of circuits with ping type copper lugs, etc. housing following switchgears : (Schneider / Hager / Siemens / Legrand make as approved by client / consultant)		
a	1 no., 40A, DP MCB as incomer		
b	8 nos, 16/20/25A, SP, MCB's as outgoing		
	Full Set as above	4	Nos
5	Supply & Installation of 20/32A, DP MCB, box with 20A, metal clad / modular plug-socket including power circuit of (2x4.0 + 1x2.5) sq. mm FRLS copper flexible wires directly taken from the relevant DB through PVC conduits for room A/C including all necessary hardware & accessories, etc. (Schneider / Hager / Siemens / Legrand make as approved by client / consultant)	5	Nos
6	Supply & Installation of 16A AC1, Timer Switch alongwith 1 no. 2NO 40A 3M contactor alongwith suitable size enclosure box for signage, etc. including power circuit wiring of (2x2.5 + 1x2.5 Sq.mm) FRLS flexible wires laid through PVC conduit directly taken from DB including all necessary hardware & accessories, etc. complete as required. (Schneider / Hager / Siemens / Legrand make as approved by client / consultant)	2	Nos
7	Supply & Installation of 15A modular plug-socket of approved make including power circuit of (2x4.0+ 1x2.5) sq. mm FRLS copper flexible wires directly taken from the relevant DB through PVC conduits for termination of strong room main electrical power supply into 15A modular plug socket mounted / installed outside near strong room entrance door alongwith 3C x 4 Sq.mm Cu. flexible cable laid through flexible metal conduit for connection into the strong room main switch board / DB including all necessary hardware & accessories, etc. (Schneider / Hager / Siemens / Legrand make as approved by client / consultant)	5	Nos
8	Supply & Installation of 63A, DP MCB with suitable size enclosure for terminating supply to UPS i/p - o/p alongwith all necessary hardware & accessories, etc. complete as required. (Schneider / Hager / Siemens / Legrand make as approved by client / consultant)	2	Nos

9	Supply & Installation of 63A, TPN MCB with suitable size enclosure for terminating supply to UPS i/p - o/p alongwith all necessary hardware & accessories, etc. complete as required. (Schneider / Hager / Siemens / Legrand make as approved by client / consultant)	2	Nos
10	Supply & Installation of 63/40A, TPN/FP MCB with weatherproof box for terminating supply to AHU's, Pump machines, etc. alongwith all necessary hardware & accessories, etc. complete as required. (Schneider / Hager / Siemens / Legrand make as approved by client / consultant)	6	Nos
TOTAL of SECTION (A)			
B CABELS / MAINS			
1	Supply & Installation 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 / ceiling using GI clamps & spacers as per route shown at site and further as directed by Consultant at site in the following sizes :- (Make - Polycab / Finolex / CCI / RR.)		
	NOTE :- All Armoured cables shall be provided with temporary labelling at every 5mtrs & then finally with metal identification tags showing the size & the location from/to the respective Panel / DB, at both the ends.		
1.1	3 1/2 C x 120 Sq.mm Aluminium Armoured cable with 1 runs of 8 SWG GI bare wire (From Meter Room to Main SFU to Main MCCB in Main Electrical LT Panel, location as approved in the proposed premises)	50	Mtrs
1.2	4C x 6 Sq.mm Copper Armoured cable with 1 runs of 12 SWG GI bare wire (Main Electrical LT Panel to AC outdoors as approved).	120	Mtrs
1.3	4C x 10 Sq.mm Copper Armoured cable with 1 runs of 12 SWG GI bare wire (Main Electrical LT Panel to LDB+RPDB+ACDB - 1 no.s, location as approved / required as per HVAC requirements)	70	Mtrs
1.4	4C x 4 Sq.mm Copper Armoured cable with 1 runs of 12 SWG GI bare wire (UPS Out-put to Main UPS DB, AC outdoor units)	50	Mtrs
1.5	2C x 2.5 Sq.mm Copper Armoured cable with 1 runs of 12 SWG GI bare wire(Main Electrical LT Panel to Signage supply input)	90	Mtrs
1.6	1C x 6 Sq.mm Copper flexible lead wire through flexible PVC conduits (UPS i/p, o/p connections, etc.)	30	Mtrs
1.7	3 1/2 C x 70 Sq.mm Aluminium Armoured cable with 1 runs of 8 SWG GI bare wire (From VTPN DB to Electrical LT Panel, location as approved in the proposed premises)	50	Mtrs
2	Supply & Installation 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 :-		
2.1	3 1/2 C x 120/70 Sq.mm Aluminium Armoured cable with 2 runs of 8 SWG GI bare wire	6	Nos
2.2	4C x 6 Sq.mm Copper Armoured cable with 1 runs of 12 SWG GI bare wire	4	Nos
2.3	4C x 10 Sq.mm Copper Armoured cable with 1 runs of 12 SWG GI bare wire	4	Nos
2.4	2C x 6 Sq.mm Copper Armoured cable with 1 runs of 12 SWG GI bare wire	4	Nos
2.5	2C x 2.5 Sq.mm Copper Armoured cable with 1 runs of 12 SWG GI bare wire	4	Nos
2.6	1C x 6 Sq.mm Copper flexible lead wire through flexible PVC conduits (UPS i/p, o/p connections, etc.)	6	Nos
TOTAL of SECTION (B)			
C EARTHING (GENERAL / DEDICATED)			
1	Supply & Installation of earth pit comprising of 600mm x 600mm x 3mm thick copper plate buried at a minimum depth of 1.5 meter including necessary materials like charcoal, salt etc. as required conforming to BIS standards having brick masonry chamber with hinged cover and watering arrangement. (Earth Pit - 1) (Dedicated UPS Earthing Pit)	2	Nos
2	Supply & Installation of earth pit comprising of 600mm x 600mm x 6mm thick GI plate buried at a minimum depth of 1.5 meter including necessary materials like charcoal, salt etc. as required conforming to BIS standards having brick masonry chamber with hinged cover and watering arrangement. (Earth Pit - 2) (Electrical Earthing Pit)	1	Nos
3	Supply & Installation of copper /GI earthing wires/strips in following sizes including all necessary hardware & accessories, etc.:-		
3.1	25 x 5 GI. Strip through PVC sleeve (Electrical Earthing) (From Electrical Earthing Pit to Main Electrical Earthing Busbar)	20	Mtrs
3.2	1C x 6 sq.mm flexible Cu. Wire through heavy guage PVC conduit in case of wall / ceiling surface / concealed run & through heavy guage M.S. conduit in case of underground run including all necessary hardware & accessories, etc. complete as required. (Dedicated UPS Earthing)	80	Mtrs
4	Supply & Installation of (32 x 3)mm of 300mm length Cu. earthing bus with enclosure with sufficient no. of hole for connecting earthing wire with necessary accessories, hardware, etc. (UPS Earthing BUS)	1	Nos

5	Supply & Installation of (32 x 6)mm of 300mm length GI. earthing bus with enclouser with sufficient no. of hole for connecting earthing wire with necessary accessories, hardware, etc. (General Electrical Earthing BUS)	1	Nos
TOTAL of SECTION (C)			
D INTERNAL LIGHTING & POWER WIRING			
1	Supply & Installation of concealed / resessed / surface light point / fan point / call bell point wiring using 600V FRLS grade 3R (P+N+E) x 1.5 Sq.mm 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 or on the ceiling in case of an open ceiling including 3R (P+N+E) x 2.5 Sq.mm circuit wires from the relevant DB and also including 2.5 sqmm green color copper earth wire and approved make modular type switch plate, switches, MS concealed back box, etc. as required & as approved by the consultant. (Each circuit shall not feed more than 8 points OR 800 watts as per following configuration.) <u>(The item rate shall include Lighting / Raw / UPS Power Circuit wiring from relevent DB to the switch board with 3Rx2.5 Sq.mm FRLS wires & from switch board to next switch board OR to the first light point / primary point / full point)</u>		
1.1	Primary light points including the cost of 5A switch	80	Nos
1.2	Secondary light points looped from the above point	50	Nos
1.3	Fan Point including 120W Electronic type step regulator & fan hook as required	20	Nos
1.4	Bell point comprising of wiring as mentioned above including Remote/ Electronic Call bell (as approved by client / consultant), Bell push & Bell indicator.	1	Nos
1.5	5A plug point as primary point independent mounted on wall / partition / on work station, etc. (UPS / RAW Power) (Only three workstations / independent mounted raw power points shall be looped in one raw power circuit. Whereas in measurements out of five workstations / independent mounted, four no.s of 5A s/s raw points will be considered as secondary points & 1 no. of 5A s/s raw point will be considered as primary point.)	10	Nos
1.6	Secondary 5A Plug point on switch board or looped from above 5A primary point (UPS / RAW Power) (Only three workstations / independent mounted raw power points shall be looped in one raw power circuit. Whereas in measurements out of five workstations / independent mounted, four no.s of 5A s/s raw points will be considered as secondary points & 1 no. of 5A s/s raw point will be considered as primary point.)	10	Nos
1.7	Exhaust fan point consisting of 5A socket near fan and switch on light switch board	4	Nos
2	Supply & installation of 5/15A Plug Point directly taken from DB for Pantry / geyser / zerox / printer / fridge, etc. including 2 x 2.5 sqmm FRLS grade circuit wires directly taken from the relevant DB and also including 2.5 sqmm green color copper earth wire all laid through PVC conduit with all necessary hardware& accessories, etc. (UPS / Raw Power)	5	Nos
3	Supply & Installation of point wiring for UPS or stabilized power plug points on workstations / table for computers using 3C X2.5 Sqmm FRLS grade copper conductor PVC sheathed white color flexible cable pulled through already laid floor raceways and taken upto table top using PVC rigid or flexible conduits run within wooden/metal partitions. Each point consisting of 4 nos of 5A , 2/3 pin sockets below table top & 1 No., 15A Switch above table top, wired together forming one point. The earth wire of 3 core flexible cable to be of yellow-green color only. (ONLY Three tables served by one circiut from DB)	5	Nos
4	Supply & Installation of point wiring for UPS or stabilized power plug points on workstations / table for computers using 3C X2.5 Sqmm FRLS grade copper conductor PVC sheathed white color flexible cable pulled through already laid floor raceways and taken upto table top using PVC rigid or flexible conduits run within wooden/metal partitions. Each point consisting of 3 nos of 5A , 2/3 pin sockets below table top & 1 No., 15A Switch above table top, wired together forming one point. The earth wire of 3 core flexible cable to be of yellow-green color only. (ONLY Three tables served by one circiut from DB)	30	Nos
5	Supply & Installation of point wiring for UPS or stabilized power plug points on workstations / table for computers using 3C X2.5 Sqmm FRLS grade copper conductor PVC sheathed white color flexible cable pulled through already laid floor raceways and taken upto table top using PVC rigid or flexible conduits run within wooden/metal partitions. Each point consisting of 2 nos of 5A , 2/3 pin sockets & 1 No., 15A Switch , wired together forming one point. The earth wire of 3 core flexible cable to be of yellow-green color only. (ONLY Three tables served by one circiut from DB)	2	Nos
TOTAL of SECTION (D)			
E FLOOR TRENCH BOXES / CABLE TRAYS			

1	Supply and laying Raceways / Conduits (for under floor trenches / On trays) on existing flooring. Raceways / conduits shall be fixed to the flooring with GI clamps for finished levels as per the site conditions or through partitions with all accessories. The rate shall include preparation of trenches of required sizes by carefully removing the malwa on existing floor for laying Raceways/conduits for power, data, telephone cables etc. The depth of the trenches shall be at least 2 inches from the finished floor level or upto RCC of the slab. The rate shall include the cost of the Raceways/conduits. The rate shall also include the activity of clearing the debris generated from the preparation of trenches & filling the same with PCC. (FOR THE PORTION WITHOUT FALSE FLOORING)		
1.1	25 mm heavy guage PVC conduit to be laid cancelled / surface in / on wall / floor as required as per the above mentioned specifications	200	Mtrs
1.2	80 x 40 x 1.6mm thick Aluminium Raceways	50	Mtrs
1.3	60 x 40 x 1.6mm thick Aluminium Raceways	50	Mtrs
2	Supply & Installation of floor junction boxes without top cover for above raceways, of following sizes , fabricated out of M.S. sheets, fully powder coated with provision for removable M.S. / S.S. screwed cover plates on all four sides for blocking the entry into the junction box. All the junction boxes to be (with stud) 'properly earth - bonded with the raceways pipe using 12 SWG Copper bare wire as directed at site.		
2.1	size 250mm x 250mm x 50mm x 2.5mm thick	20	Nos
2.2	size 300mm x 300mm x 50mm x 2.5mm thick	10	Nos
3	Supply & Installation of suitable sizes 2mm thick removable cover plate screwed on all four sides of M.S. sheet, fully powder coated, for blocking the entry into the floor junction box for following sizes of junction boxes with rounded corners as per the instruction given & sample approved by the client / architect / consultant at site. Cover plate shall have required no.s of 1' dia knockouts for flexible conduit outlets as per the requirement.		
3.1	for Junction Box of size (250mm x 250mm x 50mm x 2.5mm thick)	20	Nos
3.2	for Junction Box of size (300mm x 300mm x 50mm x 2.5mm thick)	5	Nos
3.3	for Junction Box of size (150mm x 250mm x 50mm x 2.5mm thick)	5	Nos
TOTAL of SECTION (E)			
F LIGHTING FIXTURES			
Supply & Installation of lighting fixtures with lamps as per the details below including necessary hardware such as clamps, nuts, bolts, nails, screws and suspension rods as required for fixing the fixtures in position as directed by architect / consultant / client.			
Note :- All Light Fixtures shall be approved by the Client / Architect / Consultant before placing order to the Light Fixture Vendor / Supplier. All Light Fixtures shall be of Philips / CG / GE / Bajaj make only unless & otherwise other makes are specified. Client / Architect / Consultant reserves right to approve / select final Light Fixtures from any make as required.			
1	LED Type Light fixture suitable for Modular Ceiling		
1.1	Supply & Installation of (29/30/36W) (2' X 2') LED Mirror optic Light fixture. The fitting shall be surface mounted / to be hanged from the ceiling at the height approved by architect. (PHILIPS Cat No. :- RC380B 29W or equivalent category & model in Bajaj / CGL / GE make as approved by client / architect / consultant.)	50	Nos
2	LED Type Light fixture suitable for Modular Ceiling / Plain Ceiling		
2.1	Supply & Installation of (15/18 W) LED Spotlight flush mounted Light fixture. (PHILIPS Cat No. : DN193 LED 12S or equivalent category & model in Bajaj / CGL / GE make as approved by client / architect / consultant.)	80	Nos
2.2	Supply & Installation of (10/12 W) LED Spotlight flush mounted Light fixture. (PHILIPS Cat No. : Ultima DN 092 or equivalent category & model in Bajaj / CGL / GE make as approved by client / architect / consultant.)	10	Nos
3	Cove / Indirect Lighting & Other Area Lighting		
3.1	Supply & Installation of single color (warm white 2800k light / any other approved color) flexible LED strip light including required rated driver / power supply in multiples of 1 Rmtr as approved by the architect / consultant / client along with all necessary hardware & accessories, etc. complete as required (PHILIPS / CGL / GE / Bajaj make as approved by client / architect / consultant).	70	Rmt
3.2	S & I of (20/22W) (4') LED Tubelight. (Philips Cat No. - BN021 LED 20S or equivalent model in CG / GE / Bajaj make)	10	Nos
3.3	S & I of (10/12W) (2') LED Tubelight. (Philips / CG / GE / Bajaj make)	1	Nos
3.4	S & I of Wall mounted exhaust fan (9" dia.) of decorative plastic body and blade with louvers on the outside of approved make	4	Nos
3.5	S & I of approved make 400 mm dia. Wall Fan alongwith required hardware & accessories, etc. as approved by Architech / Consultant / Client.	2	Nos
3.6	S & I of approved make Ceiling Fan (4'dia / 1200 mm dia) (BEE 5 star rated) (Colour :- White / Brown / Ivory as approved by client / architect / consultant) alongwith all required hardware & accessories, etc.	10	Nos
TOTAL of SECTION (F)			

G	MUSIC CUM PUBLIC ADDRESS SYSTEM		
1	Supply, Installation, Testing, Commissioning of point wiring for music - cum PA system comprising of 2x 1.0 sqmm stranded , copper conductor , flexible PVC insulated and PVC Sheathed wire pulled through 20 mm dia. PVC heavy gauge conduits and looped from one speaker to other and to the volume control switch wherever applicable and finally terminated an tagblock.	10	Nos
2	Supply, Installation, Testing, Commissioning of of 6" dia music speakers to be flushed mounted on false ceiling similar to BOSCH / approved equivalent make. All speakers to be equipped with matching transformer for direct connection to 100v output line	10	Nos
3	Supply, Installation, Testing, Commissioning of volume control - cum - ON - OFF switch flush mounted on wall along with other electrical switches .The size and plate of the regulating knob should match with other switches nearby.	2	Nos
4	Supply, Installation, Testing, Commissioning 35 KVAR APFCR Panel with, 3 Phase delta connected APP self healing Cap Banks, Auto Manual Switching, 5 Stage (10KVAR(2Nos), 5KVAR(1Nos),3KVAR 1No, 2KVAR 1NO)Intelligent APFC Relay, Timers, Auxiliary relays etc and with 63/40/20/16A Incommer/outgoing required MCB with thermal release & display light .The above complete with all accessories	1	Job.
5	Arranging temporary power supply and lighting for all the contractor at site including the required number of tubelight fittings, sufficient number of plug points with plug tops with wiring & cabling, also providing temporary required numbers of power points arrangements for temporary workstations and including all the necessary safety devices like MCB, ELCB / RCCB, etc. to ensure SAFE & CONTINUED supply at site. Also removing of all type of existing electrical installations including light fittings, conduits, switch, socket, casing-capping, DB's MCB's, etc. complete as directed by the client / consultant at site & handing over to the client / Branch Manager at site also marking all the DB with drawing.	1	Job.
TOTAL of SECTION (G)			
BILL OF QUANTITIES FOR ELECTRICAL & ALLIED WORKS			
SUMMARY			
SEC.	DESCRIPTION OF ITEM		
A	MAIN LT PANELS /DBS		
B	CABLES / MAINS		
C	EARTHING (GENERAL / DEDICATED)		
D	INTERNAL LIGHTING & POWER WIRING		
E	FLOOR TRENCH BOXES / CABLE TRAYS		
F	LIGHTING FIXTURES		
G	PUBLIC ADDRESS SYSTEM		
GRAND TOTAL			
H	BUYBACK OF ALL OLD ELECTRICAL ITEMS INCLUDING PANELS,DBs,WIRE, NON-LED LIGHT FITTINGS, FANS ETC	1	lot
TOTAL AFTER BUYBACK			
GST @ 18%			