

SCHEDULE OF QUANTITIES FOR ELECTRICAL WORKS AT STATE BANK OF INDIA

ELECTRICAL WORKS FOR SHIFTING OF CAO IN LCPC BUILDING AT ALIGANJ, LUCKNOW (1st Floor)

ELECTRICAL WORK:-					
S. No.	ITEM	QTY	UNIT	RATE	AMOUNT IN RS
	General Notes:-				
a)	Rates to include all scaffolding, carriage of materials to and from the site in lead of beyond 5 kms, and working in a running branch premises.				
b)	Wire Routing provided through the walls / floor / roof etc., rates to include cutting of wall and refinishing the same finely complete.				
c)	Points include complete length of wiring, conduiting and accessories upto designated places as per the design and drawings.				
d)	Electrical contractor shall have to make the layout for cutting of lights etc. at site.				
e)	All newly done electrical wiring/ DB/points/ earthing etc. will be used as per instructions of architect/ engineer.				
1	LIGHT & FAN POINTS:-				
	P & F light points, fan points, call bell points, sockets etc. with 2 X 1.5 sq. mm. PVC insulated 1100 V grade FRLS, copper conductor wires and 1.0 sq. mm copper earth wire in concealed / surface using ISI mark medium guage MS pipes of 25 mm dia 1.50mm medium duty thick conduits accessories such as bends, tees saddles, draw boxes, mounting boxes, innerplates, cover plates, ceiling rose etc. (where ever required) and plug etc. The circuit wiring starting from DB to point control box / switch box using 2 X 2.5 sq. mm and 1.5 sq. mm earthing PVC insulated wiring color code to be provided. Identification ferrules at both end to be provided. (Flexible conduit / elbow NOT allowed). The conduits to be fixed in ceiling with proper clamps / wall / floor and felling the chase with cement mortar and finish the same in original form / wooden partition / above false ceiling with proper clamps (Wherever required as per standard specifications)				
	Notes:-				
	All wires shall be FRLS only				
	All material shall be approved make as mentioned in the tender.				
	Color codes must be maintained				
	No flexible conduit & elbows will be allowed.				
	Each circuit shall have independent earth wire.				
	Each point must be seperately earthed.				
	Circuit wiring is to be included in point wiring rates.				
	One S.B. can have max. 10-12 switch including 6 Amp. Socket				
	Boxes fixed in the wooden/ plywood partitions may be PVC				
(a)	One point controlled by one 6 Amp. Modular switch & switch board at SB level	Nos.	80		
(b)	Two points controlled by one 6 Amp. Modular switch & switch board at SB level	Nos.	35		
(c)	Three/ Four points controlled by one 6 Amp. Modular switch & switch board at SB level	Nos.	50		
(c)	Wall fan/ Exhaust fan point controlled by one 6 Amp. Modular switch & switch board at SB level and 6 Amp. 3 pin socket at designed place.	Nos.	33		
(d)	6 Amp. Socket with switch & light indicator at switch board places.	Nos.	25		
(e)	Call bell point with anchor make Ding Dong Bell	Nos.	5		
(f)	One ceiling fan point controlled by one 6 Amp. Modular switch & switch board at SB level with 5 step electronic regulator, extension rods up to 1 meter	Nos.	2		
(g)	Emergency Light point (On UPS) (Including separate phase, neutral, earth) and to be in separate switch boards.	Nos.	20		
2	POWER POINTS :-				
	Same as item no. 1, including providing & fixing one 16 Amp. 5 pin sockets with 16 amps switch and 6 Amp. pin sockets with 6 amps switch with wiring by using 2x4 sq. mm PVC insulated copper conductor wire in medium duty 25/19 sq. mm PVC conduit with independent 2.5 sq. mm earth wire from D. B. to first 1st socket and 1st socket to 2nd socket with 2.5 sq. mm neutral & phase and 1.5 sq. mm earth wire including providing and Fixing complete in all respects.				
(a)	Power point (Direct) with 2x 4.0 sq mm copper conductor wires.	Nos.	25		
(b)	Power point (Loop) with 2x 2.5 sq mm copper conductor wires. (Only one or two loop points are allowed.)	Nos.	15		
(c)	Same as item no. 1, including providing & fixing one 16 Amp. 5 pin sockets with 16 amps switch with wiring by using 2x2.5 sq. mm PVC insulated copper conductor wire in medium duty 25/19 sq. mm PVC conduit with independent 2.5 sq. mm earth wire from D. B. to first 1st socket and 1st socket to 2nd socket with 2.5 sq. mm and 1.5 sq. mm earth wire including providing and Fixing complete in all respects.	Nos.	20		

3	A. C. POINTS :- C&S/Havells/Legrand/HPL/ABB/Schnieder				
(a)	A.C. point wiring with 2 X 4.00 sq. mm insulated copper conductor wire (FRLS) & 1 X 2.5 sq. mm copper conductor wire for earthing from AC DB to AC point in medium duty 25/19 sq. mm PVC conduit AC point including supplying and fixing of module A.C. Box with 3 Pin metal clad pin top and 25/32 Amp. SP MCB "C" series. If required modular AC box may be provided. (For Split ACs:Wiring must be from DB to stabilizer to MCB near indoor unit to Indoor Unit.)(Wiring upto 10 meter is considered beyond 10 meter additional wiring as per measurement shall be paid.)	Nos.	9.00		
(b)	A.C. point wiring with 3 X 4.00 sq. mm insulated copper conductor wire (FRLS) & 2 X 2.5 sq. mm copper conductor wire for earthing from AC DB to AC point in medium duty 25/19 sq. mm PVC conduit AC point including supplying and fixing of module A.C. Box with 3 Pin metal clad pin top and 40 Amp. TP MCB "C" series. (For Cassette AC: Wiring must be from DB to stabilizer to MCB near indoor unit to Indoor Unit or outdoor unit as per the AC requirement.)(Wiring upto 10 meter is considered beyond 10 meter additional wiring as per measurement shall be paid.)	Nos.	9.00		
(c)	S/F <u>One 20/25 Amp</u> , 100 MA DP ELCB/RCBO 10 KA, in a suitable MS box (makes as per approved for Dbs) to be connected <u>before the AC stabilizer</u> , complete testing fixing/ installation complete in all respect (hi wall split AC).	Set	9.00		
(d)	S/F <u>One 40 Amp</u> , 100 MA 4P ELCB/RCBO 10 KA, in a suitable MS box (makes as per approved for Dbs) to be connected <u>before the AC stabilizer</u> , complete testing fixing/ installation complete in all respect (cassette AC).	Set	9.00		
4.	DISTRIBUTION BOARDS :-				
	P & F sheet metal distribution boards of approved make double door type and making necessary connections etc complete with all MCBs of C series 10 KA. (LEGRAND/ SCHNEIDER/ SIEMENS/ABB/HAGER)				
	All MCB'S must be 'C' series, 10 KA				
a	T P N 4 WAY DB :- (For Lighting) Having Incomer : 40 Amp. 4-P 100MA 10K ELCB OUT GOING : 10 Amp. SP MCB - 8 NOS and 32 Amp. SP MCB - 4 NOS	Nos.	2.00		
b	T P N 4 WAY DB :- (For Power/ AC) Having Incomer : 63 Amp. 4-P MCB OUT GOING : 16 Amp. SP MCB - 12 NOS	Nos.	2.00		
c	T P N 4 WAY DB :- (For UPS INCOMER) Having Incomer : 63 Amp. 4-P MCB OUT GOING : 63 Amp. SP MCB -4 NOS and 10 Amp. SP MCB -3 NOS	Nos.	1.00		
d	Vertical T P N 4 WAY DB :- (For A.C.) INCOMER: 125 Amp. 4 P, 25kA MCCB OUTGOING: SP MCB 32 Amp MCB - 12 NOS (Out going)	Nos.	2.00		
e	S P N 12 WAY DB(Light) :- SP MCB 10 Amp = 10 Nos. 100MA DP ELCB 25/32 Amp = 1 NOS.	Nos.	2.00		
f	S P N 12 WAY DB(Power/Raw Power) :- SP MCB 25 Amp = 10 Nos. 100MA DP ELCB 63 Amp = 1 NOS.	Nos.	3.00		
g	S P N 4 WAY DB :- with one number 63 A 4 Pole MCB with enclosure	Nos.	2.00		
g	S P N 4 WAY DB (UPS outgoing):- with two number 40 A 300MA 10KA DP ELCB with enclosure	Nos.	1.00		
h	S P N 12 WAY DB(UPS DB) :- SP MCB 16 Amp = 10 Nos. 300mA DP ELCB 40 Amp = 1 NOS.	Nos.	3.00		
5	LIGHT & FAN FIXTURES :-				
	P & F light fixture & accessories as per the following details and making connections, assembling, fixing, testing & installation with 3 years warranty. Following Fixtures including all accessories & extension chords as maybe necessary complete. All CFL / Flurescent fixtures (except down lighters) to be hung from the RCC ceiling by suitable chain / rods) all to fixture rates to include 3 years warranty. Including all removing, shifting, repairing, fixing, welding, cutting, instalation, testing, commissioning work of existing or proposed items for the following work. Including making good, proper finish of walls, floor and roof with masonary, R.C.C., plaster, pop, puty, primer, paint, etc. complete in all respects. Including color temp. for light fixtures must be 6500k. Dealer authorisation certificate with invoice detail required. Technical specification minimum 100 lumens per watt, Pf>.90, THD<20%				
(a)	Philips RC 380B 42S LED Full glow 24" X 24" (6500K)/BAJAJ/OSRAM/HAVELLS/WIPRO/JAGUAR	Nos.	70.00		
(b)	Philips Green LEDi 15 Watt DN 194 B (6500K) /BAJAJ/OSRAM/HAVELLS/WIPRO/JAGUAR	Nos.	90.00		
(c)	Philips LED Tube lights 18 W/ 22 W (6500K) /BAJAJ/OSRAM/HAVELLS/WIPRO/JAGUAR	Nos.	6.00		

(d)	Wall fan 450 mm metal body metal blade three pin - Crompton High flow of capacitor start, three speed wall mounting/cabin fan of following sweep with the help of anchor bolts including making connection testing etc. as required. Each wall fan should be connected through independent switch and socket of 6Amp.(Crompton/ Almonard/ Usha/ Havells/Orient)	Nos.	32.00		
(e)	Exhaust fan 300 mm - Crompton/ Almonard of Heavy duty capacitor start 1400 RPM single phase ISI marked Exhaust fan, IS:2312 marked including making opening if required, making connections testing etc. as required.(Crompton/ Almonard/ Usha/ Havells/Orient)	Nos.	3.00		
(f)	S& F of Rope Light with driver (Philips/ Bajaj/ HPL/ Osram/ Havells/Wipro Jaguar)	Rmts.	100.00		
(g)	P&F of ceiling Fan Metal body BLDC 4800 mm Sweep (Crompton/ USHA/ Bajaj/Orient)	Nos.	2.00		
(h)	S& F of 9 w Mirror Light with driver (Philips/ Bajaj/ HPL/ Osram/ Havells)	Nos.	1.00		
(i)	Dismantling from existing building, transportation with due care to proposed building at LCPC and installation & testing of 2'x2' fittings	Nos.	20.00		
(j)	Dismantling from existing building, transportation with due care to proposed building at LCPC and installation & testing of downlighter fittings	Nos.	60.00		
6	CABLES WIRES :-				
	P & L heavy duty armored cable on saddles wherever exposed and with aluminium lugs, cable termination with gland, aluminium lugs properly crimped, etc. complete. Including reusing of the existing cables wherever required as per direction of Bank Engineer/ Architect, vendor is bound to execute the items. All existing and proposed cables to be lay out in existing cable tray. Complete in all respects as per direction of Bank/ Architect.				
	XLPE Cable (Polycab/ Finolex/ RR/KEI)				
a	3.5 core X 120 sq. mm Al. armoured cable with 2 X 8 SWG G.I. wire in PVC conduit for earthing including cables termination with gland, Al. lugs properly crimped of required size. (Main cable from SBILD/LCPC ground floor panel to main CAO panel)	Rmts.	120.00		
b	3.5 core X 70 sq. mm Al. armoured cable with 2 X 8 SWG G.I. wire in PVC conduit for earthing including cables termination with gland, Al. lugs properly crimped of required size.	Rmts.	30.00		
c	3.5 core X 35 sq. mm Al. armoured cable with 2 X 8 SWG G.I. wire in PVC conduit for earthing including cables termination with gland, Al. lugs properly crimped of required size. (FOR LIGHT, CASSETTE A.C. & POWER)	Rmts.	80.00		
d	3.50 core X 25 sq. mm Al. armoured cable with 2 X 8 SWG G.I. wire in PVC conduit for earthing including cables termination with gland, Al. lugs properly crimped of required size. (FOR LIGHT, CASSETTE A.C. & POWER)	Rmts.	120.00		
7	CIRCUIT WIRING:				
a	Supply, installation, testing and commissioning (SITC) of 2 X 6 + 1 X 4 sq.mm., 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid or flexible PVC conduit as required preferably concealed in floor/ wall including chase cutting and making good of damages/ surface including connections, complete in all respect (RAW POWER/UPS DB)	Rmts.	220.00		
b	Supply, installation, testing and commissioning (SITC) of 2 X 4 + 1 X 2.5 sq.mm., 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid or flexible PVC conduit as required preferably concealed in floor/ wall including chase cutting and making good of damages/ surface including connections, complete in all respect (UPS OUTPUT TO UPS DB and AC wiring)	Rmts.	360.00		
c	Supply, installation, testing and commissioning (SITC) of 3 X 4 + 2 X 2.5 sq.mm., 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid or flexible PVC conduit as required preferably concealed in floor/ wall including chase cutting and making good of damages/ surface including connections, complete in all respect (Cassette AC wiring)	Rmts.	260.00		
8	U.P.S. POINTS & CIRCUITS :-				
	P & F ups points in 2 mm thick PVC conduit with 2 X 2.5 sq. mm insulated copper wire along with 1 X 1.5 sq. mm PVC insulated wire for earthing including bends, nipples, junction, M.S. switch boxes each to have 2 nos. 6 A 5 pin and one 16A 5 pin modular socket 1 X 6 A indicator controlled by 1 X 16 A modular type switch compl fine finish incl. making necessary connection & start of equipment as per details. Complete in all respects as per direction of Engineer/ Architect. Make as specified above) Socket to be provided below table and switch with indicator above table.				
(a)	DIRECT POINT	Nos.	30.00		
(b)	LOOP POINT (Only one point to be loop.)	Nos.	15.00		
9	EARTHING :- (Ashlok, JK, Ash, REIL)				

(a)	Supply and installation of pipe-in-pipe technology Copper Earth Electrode earthing system modelt-39 with outer diameter of 80 mm length 2000 mm embedded in the soil with masonry inspection pit along with cover etc. complete in all respect. <u>The work should be got carried out through bank's authorized Company only. Each pit installation test certificate to be submitted after measurement of earth resistances as per the provision in IS 3043 (ups out DB earthing). The inspection pit should be visible and at a proper place.</u>	Nos.	2.00		
(b)	Supply and installation of pipe-in-pipe technology ASHLOK Copper Earth Electrode earthing system modelt-T19 with outer diameter of 50mm length 2000 mm embedded in the soil with masonry inspection pit along with cover etc. complete in all respect. <u>The work should be got carried out through bank's authorized vender only. Each pit installation test certificate to be submitted after measurement of earth resistances as per the provision in IS 3043 (Panel ups input DB earthing).</u>	Nos.	2.00		
(c)	P & L 2 X 8 SWg copper earth wire at designated place in PVC conduit (Pit to Panel/ Pit to UPS)	Mtrs.	150.00		
(d)	Providing & installation of 1 X 10 sq.mm. PVC insulated copper wire in 20 mm PVC pipe from earth station to UPS room complete in all respect including fixing with nut and bolts (concealed on wall/ floor).	Mtrs.	120.00		
10	FLOOR - RACEWAYS:				
a	S & I of floor - raceways consisting of 2 Nos of 75 mm x 40 mm x2mm thick rectangular aluminium anodized pipes including chasing and refilling as per the route shown in the drawing and as approved by consultant at site including claiming at every open pipe ends by suitable plastic end - covers against entry of dust or any other foreign material.	Rmt	40		
b	S & I of floor - raceways consisting of 2 Nos of 150 mm x 40 mm x2mm thick rectangular aluminium anodized pipes including chasing and refilling as per the route shown in the drawing and as approved by consultant at site including claiming at every open pipe ends by suitable plastic end - covers against entry of dust or any other foreign material.	Rmt	30		
c	S & I of galvanised floor junction boxes for above mentioned raceways , of size 200mm x 200mm x2.0 mm thick , fabricated out of 2.0 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. All the junction boxes to be 'properly Earth - bonded with the raceways pipe using 12 SWG Copper bare wire as directed at site.	Nos	12		
11	MAIN ELECTRIC PANEL:				
	Supply, installation, testing and commissioning (SITC) of new fully compartmentalised, wall/ Floor mounted, if floor mounted than stand should be made of MS channel/angle grouted to floor with the panel 450 mm above ground level, bottom/top cable entry, front operating, dead back main electrical panel made of 16g CRCA sheet steel painted with one coat of red oxide primer and two coat of outdoor type synthetic enamel paint (spray painted) after de greasing, de rusting and phosphading, with two earth studs, 30x6 mm G.I. Earth bus, SMC/DMC insulator as required and comprising of the following: Incomer : i. One 4P, 415 V, 250A, 25 KA breaking capacity MCCB with adjustable thermal and fixed magnetic release. ii. One 4 pole, 415V, on load, 160 A, changeover switch with rotary handle, 0-500 A ammeter with set of CTs and 0-500V Voltmeter with selector switch and LED indicating lamp for each phase. Outgoing : i One 415V, 4P, 125A, 25KA breaking capacity MCCB (AC)with adjustable thermal and fixed magnetic release out going. Connection to this MCCB is to be done after the main incomer MCCB and before changeover.(One for AC in common hall) ii. One nos. 415V, 4P, 100A, 25KA breaking capacity MCCB with adjustable thermal and fixed magnetic release out going.Connection to this MCCB is to be done after the main incomer MCCB and before changeover.(One for AC in common hall) iii. One nos. 415V, 4P, 100A, 25KA breaking capacity MCCB with adjustable thermal and fixed magnetic release out going.(One for capacitor panel)				
	iii. Two nos. 415V, 4P, 100A, 25KA breaking capacity MCCB with adjustable thermal and fixed magnetic release out going.(One for UPS and one Spare) iv. Four nos. 415V, 4P, 63A, 10 KA breaking capacity MCB(Two for light, AC in BM chamber and one spare). iv. Two no. 230V, DP, 40A, 10 KA breaking capacity MCB(One for glow sign board and one spare)Two Bus bar chamber with R,Y,B and N bus bars made of 25x10 mm Aluminium(Indal, Hindalco, Balco)(one for AC MCCB before Changeover and one for rest of the panel).				

	Digital Ammeter with CT Set and selector switch, RYB LED LAMP, ON/OFF Indicating Lamp, 1 set 3 phase digital ammeter with CT, 1 set 3 phase digital voltmeter, 1 set phase digital frequency meter with CT, 1 set digital meter for KWH, KVAH, KW with CT or multi function meter having all above parameters				
	Danger plate should be provided. All MCCB should be with external rotary handle, separator sheet and spreader terminals. Minimum phase to phase distance 32 mm, phase to neutral and earth 26 mm. Metallic partition should be provided between adjacent cubical/compartment. Cubical should be made of vermin and dust proof by means of suitable gasket around all door/covers removable gland plates to be provided. All bus bar should be sleeved by heat shrinkable PVC red, yellow, blue and black coloured. All wiring to be done by PVC insulated 1100V grade copper flexible conductor wire of following size. CT circuit : 2.5 sq. mm PT circuit : 1.5 sq. mm all wires to be provided with appropriate crimping type lugs/ferrules for termination. Protection shrouds to be provided on incoming side of incomer and on normally live parts when cubical door is opened. Bakelite barriers of 4 mm thickness shall be provided on incoming and outgoing side of incomer. Approval of general layout, manufacturing and single line diagram drawings from consultant/Bank's Engineer is required before commencing manufacture and the panel should be tested in the presence of Consultant/Bank's Engineer at manufacturer's premises before dispatch to site along with HV withstand and insulation resistance test reports.	Nos.	1.00		
	Grand Total				
					Plus GST

Rate are considered inclusive of all except GST. GST shall be admissible at prevalent rates/ rules.