

STATE BANK OF INDIA : ELECTRICAL BOQ
BRANCH NAME:- SSI- PEENYA

Sl.No.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
PART - A					
A. MV PANELS & DISTRIBUTION BOARDS					
1.0	Supply, installation, testing and commissioning of M.V. panels and switch gears suitable for 415V, 3 phase, 4 wire, 50Hz power distribution system. The panel shall be free standing Wall / floor mounting type 14G/16G sheet steel enclosed, flush front with single aluminium bus bars and separate earth bus to be provided through out the length of the panel. The incoming and out going feeders breakers, changer over switches, fuses indicating lamps shall be accomadated in a modular multiter arrangement. Minimum clearance of 400mm shall be provided from the floor level to the bottom most termination point adequate size cable alley and bus bar chamber shall be provided ,all round the panel and it shall be connected through solid bus bars. Flexible cable links are not acceptable .				
	Bus bars shall be provided with sleeves or heat resistant insulated paint. The paint shall be suitable for both top/bottom cable entry. The minimum fault rupturing capacity of all incoming and out going breakers/ switches shall be as per SLD only. The panel shall be painted in conformity with the relevant IS code.The panel shall be fabricated only after obtaining approval of the GA drawings. The rate shall also include cost of civil works including fixing accessories, all complete as required .				
1.1	MAINS & CHANGE OVER PANEL - Manual (EB& DG) Incomer : i) 1 no. 200A TPN MCCB ii) 1 sets of RYB indicating lamps & control MCB's Outgoing: i) 2 nos. 100A TPN MCCB, 3 no. 40A TP MCB for Capacitor Panel ii) 1 no, 160A , 4P COS (ROTARY TYPE MODULE) iii) 2 sets of RYB indicating lamps & control MCB's FOR EB & DG iv). 160 amps Aluminium (2 sets)Double Bus Bars for EB and DG out put's as required for taking Output to Different VDB's	Set	1		
1.2	Capacitor PANEL Incomer : to be connected directly to EB Bus with MCB Control 3 X 10 KVAR capacitor, of approved make all the 3 set of Cap Panel shall be in a separate Metal Box with powder coating to be connected to Bescom Power	SET	1		
2.0	MCB DISTRIBUTION BOARDS : ALL DOUBLE DOORS - ABB,SCHNIDERS,INDOASIAN(OPTIPRO),HAVELLS,LEGRAND.ETC				
	Supply, installation, testing and commissioning of the following cubicle type 1.2 mm thick CRCA sheet steel enclosed powder coated with approved shade and partitions to segregate phase with approved covers, single / double door, factory made recessed in wall or surface mounted final distribution boards of the following description. All final DB's shall have outgoing with internal wiring brought upto terminal block for external cable connections.				
	NOTE : 1) Surface mounted DB's on walls shall be provided with suitable size frame work and neatly grouted on to wall and DB shall be fixed on to the frame work using bolts & nuts and other fixing accessories.				
	2) DB's conceald in wall shall include cut of necessary civil works and other fixing accessories.				
	3)The DB's shall be horizontal / vertical type as per configuration of incoming/outgoing feeders.				
	4)The DB's shall be factory made of approved make and necessary available higher size configured DB's shall be used.				
2.1	MDB VTPN MCCB DB for EB supplies to HVAC Incomer: 1 No.100A, 3P MCCB ,16ka Outgoing: 12Nos. of 10/16/25 A SP MCBs (D curve) 2 No's 63Amps TP MCBs (C/D curve)	Set	1		
2.2	LDB/UPS DB - Type 1 FOR ATM load SPN MCB DB Incomer: 2x No.40A, 2P, MCB (C or D curve) Outgoing: 6Nos. of 16/25A, SP, MCBs (B/C curve)	Set	1		
2.3	LDB DB - Type 2 FOR BRANCH ETPN MCB DB Incomer: 1 No.63A, 4P, RCCB(0-30mA) + MCB (B curve) Outgoing: 16Nos. of 6/10/16A, SP, MCBs (B curve)	Set	1		
2.4	PDB FOR BRANCH ETPN MCB DB Incomer: 1 No. 40A, 4P, RCCB (0-100mA) + MCB(C curve) Outgoing: 8 Nos. of 16/20/25/32 A, SP, MCBs (C curve)	Set	1		
2.5	UPS & Critical DB VTPN - MCCB DB Incomer: 1 No. 80A-3P MCCB ,16ka Outgoing: 6 Nos. of 25/32 A SP MCBs (C/D curve) 3NO's x63 Amps TP MCB	Set	1		
2.6	Computer DB - Type 1 6 WAY TPN MCB DB Incomer: 2x 40A, 2P, MCB (C/D curve) Outgoing: 14 Nos. of 6/10 A SP MCBs (C/D curve)	Set	1		
2.7	Computer DB - Type 2 ETPN MCB DB Nos. of 6/10 A SP MCBs (D curve)	Set	0		
2.8	Critical Lighting Loads DB 6 way SPN MCB DB Incomer: 1 No. 40A, DP MCB (C/D curve) Outgoing: 4 Nos. of 16/25 A SP MCBs (C/D curve)	Set	1		

3.0	Supply, installation, testing and commissioning following sizes isolator CONTROLS WITH 4 P , ROTARY TYPE MCCB'S in metallic enclosure- Factory Fabricated with Customized enclosures as req . The isolator shall be wall mounted using necessary brackets and fixing accessories.				
	100 AMPS , 4P MCCB's to be used as an Isolator/Master Control FOR HVAC & 1X63 Amps MCB for Lighting loads IN SAME ENCLOSURE Metal Fabricated BOX of required sizes..	Set	1		
4.0	Supply, installation, testing and commissioning following sizes MCB in metallic enclosure. The MCB shall be wall mounted using necessary brackets and fixing accessories.				
a)	63A, DP MCB (D curve)	Set	4		
b)	63A, 4P MCB (D curve)	Set	3		
PART - A TOTAL AMOUNT					
PART - B					
B. LT CABLES AND CABLE END TERMINATION :					
1.0	Supply & Laying of 1100V grade, XLPE/ PVC insulated, PVC sheathed, Aluminium / copper conductor, steel armoured cables. The cable shall be laid in existing trench, cable tray / clamped on to the walls using necessary fixing accessories. The cable shall be provided with cable identification tags made out of Aluminium strip, engraved with cable size and the routing. (Note : cost of cable tray, supports, excavation, sand cushioning, brick protection and back filling measured separately).				
1.1 B1	3.5C , 120Sq.mm XLPE Cable	M	30		
B1.2	3.5 C 50 Sq.mm AYFY Cable	M	70		
B1.3	3.5 C 35 Sq.mm AYFY Cable	M	60		
B1.4	3.5 C 25 Sq.mm AYFY Cable	M	120		
2.0	CABLE END TERMINATIONS:				
	Supply and providing end termination for below listed PVC insulated, PVC sheathed, aluminium conductor, steel armoured, 1100V grade, cable using brass cable glands and copper lugs etc, all complete as required.				
2.4	3.5C X 120Sq.mm XLPE Cable	set	2		
	3.5C 50Sq.mm XLPE Cable	Set	6		
	3.5C 35Sq.mm XLPE Cable	Set	4		
2.5	3.5C 25Sq.mm AYFY Cable	set	8		
3.0	Supply and fixing of hot dipped galvanized GI ladder type cable tray, conforming to IEC- 61537. The cable tray shall be supplied in standard length of 3000mm. The rate shall include cost of necessary fixing accessories like bends, off sets, collar, Tee, fish plate etc., as required. Note : The cost of supports shall be measured separately				
3.1	200mm width x 50 mm height x 1.5 mm thick	Rmtr	6		
4.0	Supply and fixing of 8mm threaded rod supports include bolts, nut & washer	Rmtr	250		
5.0	Supply and fixing of 16swg GI sheet perforated C channels 1" for horizontal support to carry pipes (support channel)	Mts	125		
6.0	Supply and fixing of UPVC trunking. The rate shall include cost of necessary fixing accessories as required.				
a)	UPVC Trunking 200 x 50 mm	Mts	6		
PART - B TOTAL AMOUNT					
PART - C					
C. WIRING SYSTEM					
1.0	Supply & Wiring for Lights, Ceiling fans, exhaust fan and 6A socket outlets using 3 x 1.5 sqmm flexible copper, 1100 volts grade PVC insulated FRLS wires drawn through 2mm thick, suitable size FR PVC conduit in concealed manner using necessary conduit accessories like junction boxes, Switch boxes, modular double plate and inner plate shall be of metal, bends, collars, clamps, ceiling roses, 6A/16A switches, Fan regulator and hook boxes, etc., and shall be flush mounted in brick wall or in the built up furnitures or on the surface of wall for surface installation as required. The rate for point wiring shall include the wiring from first point (light/switch) and then looping between lights/fans/6A socket outlets etc. Also the rate shall include earthing of each light, fan outlet boxes, switch control boxes, 6A sockets. (switches & sockets shall be of Anchor roma make /equivalent). The rate shall also include cost of civil works involved in fixing of boxes, replastering of walls chased. All the switch / sockets shall have stickers for identification				
a)	Single light point controlled by a 6A SP switch.	Nos	70		
b)	Single light point controlled by 2nos. 2Way 6A SP switch.	Nos	1		
c)	Two light point controlled by a 6A SP switch	Nos	30		
d)	Two light point controlled by 2nos. 2Way 6A SP switch.		0		
e)	Three light points controlled by a 6A SP switch	Nos	15		
f)	Ceiling fan point controlled by a 6A SP switch and without fan regulator.	Nos	6		
g)	Exhaust fan point (Single phase) controlled by a 6A SP switch and ceiling rose near the exhaust fan.	Nos	4		
h)	Supply and wiring for call bell point with 3 x 1.5sqmm PVC insulated copper conductor FRLS wires in 20mm dia FR PVC conduit, including providing bell push with outlet box, inter-connection to the lighting circuit for power supply.	Nos	1		
2.0	LIGHTING WIRING / SUB MAINS/UPS/ AC & Raw POWER/ATM UPS & RP wirings :				
	Supply & Drawing power wiring circuit /sub mains using flexible, copper conductor, FRLS wires of 1100V grade, PVC insulated wires drawn in 2mm thick suitable size FR PVC conduit. The rate shall also include running of PVC insulated copper conductor as earth wire. All circuits starting from the respected db should have ferrulling arrangements.				
a)	3 x 1.5 sqmm Copper wires in 20 mm dia PVC conduit	Rmtr.	250		
b)	2x 2.5+ 1 x 1.5 sqmm Copper wires in 20 mm dia PVC conduit	Rmtr.	2200		
c)	2x 4.0 +1X2.5sqmm Copper wires in 20 mm dia PVC conduit.	Rmtr.	200		
d)	2 x 6.0 +1X4sqmm Copper wires in 32 mm dia PVC conduit	Rmtr.	80		
e)	4x4 sqmm +1x4 sq mm Copper wires in 25 mm dia PVC conduit.	Rmtr.	20		
d)	4x6 sqmm + 1x4 sq mm Copper wires in 25 mm dia PVC conduit.	Rmtr.	60		
g)	4 x 10.0 sq.mm + 2 x 6.0 sq.mm copper wires in 38mm dia PVC conduit.	Rmtr.	8		
4.0	POWER RECEPTACLES				
	DOMESTIC TYPE:				
.	Supply & fixing of 3/5 pin, commerial combination type socket outlet with indicator mounted on a outlet box with necessary interconnection. The box shall be flush mounted in brick/stone wall. The switches shall be of type Anchor roma make / equivalent. The rate shall also include cost of civil works involved in fixing of boxes, replastering of walls chased. All the switch / sockets shall have stickers for identification				
4.1	RAW POWER SOCKET				
a)	6A socket outlet controlled by 6A SP Switch with indicators	Nos.	36		
b)	2 Nos. 6A socket outlet controlled by 2 Nos. 6A SP Switch	Nos.	4		
c)	6/16A socket outlet controlled by 1 Nos. 16A SP MCB's (Tiny Trin)	Nos.	8		
4.2	UPS POWER SOCKET				
a)	3 pin 6A socket outlet in 2 Module Box and plate for Wall Fan points	Nos.	20		
b)	2 Nos. 6A socket outlet controlled by 2 Nos. 6A SP Switch with indicator	Nos.	2		
c)	3 Nos. 6A socket outlet controlled by 1 Nos. 16A SP Switch with indicator	Nos.	45		
d)	6/16A socket outlet controlled by 1 Nos. 16A SP Switch with indicator	Nos.	2		
e)	2 Nos. 6/16A socket outlet controlled by 1Nos. 20 A SP MCB's (Tiny Trip)	Nos.	6		
5.1	Supply, installation, testing and commissioning following sizes MCB in IP 65 Weather proof enclosure. The rate shall include cost of MCB isolator. The MCB shall be wall mounted using necessary brackets and fixing accessories.				
a)	63A, 4P MCB for isolator (D curve)	Set	2		
PART - C TOTAL AMOUNT					

PART - D			
D. SUPPLY AND INSTALLATION OF LIGHT & FAN FIXTURES			
1.0	Supply, installation, testing and commissioning of following type light and fan fixtures with all necessary fixing accessories as required. The efficacy of the LED lamp shall be not less than 100lm/Watt		
1.1	1 x 20W, 5700K, 4 Feet LED tube, Surface/suspension light fixture with extruded Aluminum channel 4 feet with high translucent serrated milky white diffuser, robust and high-performance batten. LED luminaire shall comprise of extruded channel in thermally conductive material. High translucent serrated milky white diffuser to get glare free and smooth light distribution. Efficacy : 100 lumen/watt similar to Crompton make cat no.LDL-20-CDL/BAJAJ MAKE : BCLAB 20W WH LED or equivalent matching specifications as per NIT.	Nos.	40
1.2	1x 36W,5700K, 4 Feet LED tube, Surface/suspension light fixture with extruded Aluminum channel 4 feet with high translucent serrated milky white diffuser, robust and high-performance batten. LED luminaire shall comprise of extruded channel in thermally conductive material. High translucent serrated milky white diffuser to get glare free and smooth light distribution. Efficacy : 100 lumen/watt similar to Crompton make cat no.LDL-36-CDL/ BAJAJ MAKE : BCLAB 40W WH LED or equivalent matching specifications as per NIT.	Nos.	4
1.4	15W LED Recess down Lighter Slim design ,recessed round Aluminium housing with superior light output and integral driver. Efficacy 100lm/w similar to Crompton make Cat type LCDEP-15-CDL/ BAJAJ MAKE BGSLO 15W WH or equivalent matching spec in NIT.	Nos.	30
1.5	5-6 W LED Recess down Lighter Slim design ,recessed round Aluminium housing with superior light output and integral driver. Efficacy 100lm/w similar to Crompton make Cat type LCDEP-06-CDL/ BAJAJ MAKE : BGSLO 6W WH or equivalent.	Nos.	64
1.7	36 watts,5700k, LED Recessed full lit luminaire with glare free uniform illumination with longer life and less maintenance. 2X2 LED Backlite Luminaire Recess Mounted Type comprises CRCA sheet metal body powder coated in white Efficacy : 118 lumen/watt Make:- Crompton- LCTLRNE-36-FO-CDL/ BAJAJ MAKE : BZRSQ 36W LED GX or equivalent matching specifications as per NIT.	Nos.	50
1.8	Supply and Installation of LED STRIP indoor, 24W / 5meter BAJAJ MAKE : .nxt 25W PROFESSIONAL LED STRIP IP20 NW including driver and necessary fixing accessories as required.	Mts	100
1.9	Supply and fixing of 5 star rated 1200mm sweep, BLDC ceiling fan without fan regulator but with remotes and shall be of Bajaj/ Crompton , Havells etc or equivalent.	Nos.	8
1.10	Supply and fixing of 400mm wall mounted fan of Bajaj/ Crompton /Havells/ Equivalent with Metal Body only .	Nos.	16
1.11	Supply and fixing of 225mm dia. single phase. MEDIUM DUTY exhaust fan with necessary angle iron bracket.Makes : Bajaj/Crompton/Havells etc	Nos.	5
1.12	Supply & fixing of Timer for UPS room Exhaust Fans- other requirements such as signagges, automatic time delay lighting controls etc as req	Nos.	1
PART - D TOTAL AMOUNT			
PART - E			
E. EARTHING SYSTEM			
1.0	Supply & installation of 38mm dia, 2.5 Mtr. long G.I.pipe electrode earthing station complete with manholes, brick masonry chamber, heavy duty C1 covers, funnel etc., The cost shall also include providing of salt and charcoal layer by layer, excavation and back filling etc., all complete as required and shall confirm to IS - 3043.	Set	3
2.0	Supply & installation of 600 x 600 x 3 mm, copper plate earthing station complete with GI pipe, manholes, brick masonry chamber, heavy duty C 1 covers, funnel, etc., The cost shall also include providing of salt and charcoal layer by layer, excavation and back filling etc., all complete as required and shall confirm to IS - 3043.	Set	2
3.0	Supply, installation & connecting of G.I.tape /wire being clamped to walls, cable trays, ladders, run in existing pipes with Sleeves etc , laid underground etc.as required including interconnection between the earth stations etc.all complete as required. (Note : The excavation and back filling is measured separately) .		
a)	25 x 3mm G.I. tape	M	7
b)	25 x 3 mm Copper tape	M	8
c)	2x8 swg. Cu. wire	M	80
d)	2x8 swg. G.I. wire	M	80
PART - E TOTAL AMOUNT			
PART - F			
F. TELEPHONE SYSTEM			
1.0	Supply and laying of 2mm thick FR PVC conduit with all necessary accessories like junction boxes, pull boxes. G.I fish wires and other fixing accessories as required. The rate shall also include chasing of walls, floor and plastering of the chased portion etc; all complete as required.		
a)	20mm dia	M	300
2.0	Supply and wiring for telephone outlet with 0.51mm dia, copper conductor, PVC insulated, unarmoured, telephone cable in existing conduit.		
2.1	2 pair	M	1200
3.0	Supply and wiring of multicore 0.51mm, copper conductor, PVC Insulated, PVC sheathed, armoured telephone cable laid drawn through existing trench/cable tray / wall supports with all necessary accessories as required.		
a)	5 Pair Cable	M	0
b)	10 Pair Cable	M	40
d)	20 Pair Cable	M	40
4.0	Supply and installation of clip on plug type telephone outlet with interconnection of the outlet. The cover plate of telephone shall match with the other wiring accessories. (Telephone socket outlet shall be of modular of type Anchor roma / equivalent) .	Nos.	25
5.0	Supply, installation, testing & commissioning of telephone junction box. The junction box shall be with sheet steel enclosure enclosing krone connector and shall be provided with padlock arrangement.		
a)	5 Pair TJB.	Nos.	0
b)	10 Pair TJB.	Nos.	1
c)	50 Pair TJB.	Set	1

6.0	Supply, installation, testing and commissioning of Digital EPABX with following features				
	4 nos. Analog Trunk Interface Lines				
	upto 32 Nos. Analog Extensions Interface				
	Built in Caller ID ,				
	Inbuilt Power supply with CVT & MAY BE FURTHER extended till 8 trunk Interfacing and upto 64 extension lines, PRI compatibility is required.	Nos.	1		
	Syntel or Matrix, or NEC or equivalent Makes				
7.0	Supply, installation, testing and commissioning of Analog table mounted telephone instrument of make Beetel B-11 / equivalent	Nos.	24		
	PART - F TOTAL AMOUNT				
	PART - G				
	G. DATA SYSTEM				
1.0	Supply and laying of 2mm thick FR PVC conduit with all necessary accessories like junction boxes, pull boxes. G.I fish wires and other fixing accessories as required. The rate shall also include chasing of walls, floor and plastering of the chased portion etc all complete as required.				
a)	25 mm dia	M	650		
2.0	Supply, installation of Dual RJ-45 , CAT -6 information outlet with necessary back mount box and other fixing accessories. (socket outlet shall be of modular of type Dilink / equivalent) .	Nos.	25		
3.0	Supply, drawing and connecting of cat-6, UTP cable in existing conduit for LAN network.	M	2200		
4.0	Supply and connecting of UTP cat -6 mounting cords				
a)	4' 0" long	Nos.	50		
b)	7' 0" long	Nos.	25		
5.0	Supply, installation , testing & commissioning of patch panel with CAT-6 I/O mounted on existing rack with all necessary fixing accessories. The rate shall include cost of ferrule, numbering, stickering & necessary fixing accessories as required				
a)	24 port jack panel	Nos.	2		
6	Supply , Installation ,Testing , Commissioning of 15 U , Data Rack(Wall mounted along with following Accessories as required)				
	Data rack (make netrack/Bestnet or eqv) having Front Glass door, side sheets panels etc with 1 PDU each having 2x15 A+ 2x5 amps , total 2 No's power sockets arrangements with Cable Manager, Accessories and cooling Fan-1 no.	Nos.	1		
	PART - G TOTAL AMOUNT				
	PART - H				
	H. TV SYSTEM				
1.0	Supply and installation of T.V. Co-axial socket outlet with inter connection of the outlet The cover plate of T.V. Co-axial socket outlet shall match with other wiring accessories. (The socket outlet shall be of make Anchor roma /equivalent) The rate shall also include cost of civil works involved in fixing of boxes.	Nos	0		
	PART - H TOTAL AMOUNT				
	PART - I				
	I. PA SYSTEM				
1.0	Supply and wiring as per colour code transparent speaker cable 1.0 sqmm PVC insulated stranded copper wires in ISI grade 20mm conduit for speakers.	M	700		
2.0	Supply and providing 9W recessed type speakers on ceiling CS 663 T Ahuja make speaker.	Nos	12		
	PART - I TOTAL AMOUNT				
	PART - J				
	J. MISCELLANEOUS WORKS:				
1.0	Supply and laying of 2mm thick FR PVC conduit with all necessary accessories like junction boxes, pull boxes. G.I fish wires and other fixing accessories as required. The rate shall also include chasing of walls, floor and plastering of the chased portion etc., all complete as required.				
a)	20mm dia	M	150		
2.0	Electrical safety - RUBBER mats of 1.1kV grade 1.8mx.0.9m	Nos	2		
3.0	Supply and fixing : of 1nos First aid kit, Safety chart, Danger boards-2nos , No Admission boards-1nos	set	2		
4.0	Dismantling of existing wiring, conduit, light fixtures, ceiling fan, exhaust fan, light plug, switch boards, DB's. LT cables, determination cables, complete dismantling of electrical components in the building and making good of the damages to surfaces. Bundling all the wires, cables, and securing of all other dismantled materials and storing it, at the location allotted / identified by the project manager within in the premises, all complete as required.	LS	1		
5.0	Submitting as built drawings for Data Nw & electrical SLD for entire works	job	1		
6.0	Submission of complete Data reports for valid measurements through calibrated machines	job	1		
8.0	Arranging temporary Data, Tele lines	job	1		
9.0	Arranging Temporary UPS power , RP and miscellaneous arrangements	job	1		
	TOTAL:-				TOTAL
	GST EXTRA AS APPLICABLE				