STATE BANK OF INDIA					
BILL OF QUANTITY OF ELECTRICAL WORKS OF SME KHAGARIA UNDER RBO MUNGER					
Sl No.	**Item Description**	**Unit**	**Qty.**	**Rate(Rs)**	**Amount(Rs)**
1	Supplying, laying, testing & commissioning of PVC insulated aluminium armoured 1.1 KV grade **3.5 core 70 sqmm cable** with making proper trench/support as per IS specification and complete with all respect From **Transformer/Pole to Main Panel and Main Panel to Gate MCCB & back.**	Mtr.	80		
2	Supplying, laying, testing & commissioning of PVC insulated aluminium armoured 1.1 KV grade **4.0 core 35 sqmm cable** with making proper trench/support as per IS specification and complete with all respect **From Main Panel to ACDB**.	Mtr.	60		
3	Supplying, laying, testing & commissioning of PVC insulated aluminium armoured 1.1 KV grade **4.0 core 16 sqmm cable** with making proper trench/support as per IS specification and complete with all respect **From Main Panel to UPS Incoming/LDB**.	Mtr.	60		
4	**(A) MAIN INCOMING SOURCE PANEL (MISP)** : SITC of main incoming (MIP) Panel suitable for wall /floor mounted indoor type, air insulated, totally enclosed vermin-proof (IP 42), dead front, cubicle type, 2 mm thick sheet steel enclosure use on 415 V, 3 Ph., 4 wire, 50 Hz. A.C. system, instrumental panel, CTs, incoming and outgoing cable compartmen. The Panel shall be complete with switches as per site requirement, inter connection, G.I. earth busbar of adequate size covering the total length of switch board with drilled holes, G.I. bolts, nuts, washers etc. as directed by E-I-C. The cubicle should be painted with two coats of light grey synthetic enamel paint over two coats of zinc chromate primer. The complete fabrication, construction shall be done as per the site condition and conforming to the relevant IS. Name plate of Panels Danger Board, incoming and outgoing feeders with Ampere rating of switches are to be fixed up on front door above or below the respective switches. Approval of Manufacturer's drawings from EIC. The Panel consists of the following				
	INCOMING : 1 No. 415V, 160A 4P MCCB (35 KA) ; 1 No. , 160A 4 Pole Change-over - 1 No. ; Digital Multi Function Meter (MFM) for Current, Voltage, Frequency, Power; 3 Nos.: LED Phase indicating lamps; 3 Nos.: Suitable CTS; 2 Set TPN Tinned Copper Busbar 200 Amp. for phases and neutral.				
	OUTGOING : **Termination I:** (i) 1 Nos. 63 A (25KA) 4P MCCB for UPS (ii) 3 Nos. 32A 10 KA DP MCB for Gate light DB & Pantery Fridge Supply etc. **(Directly connected the outgoing of C.O.)** **Termination II:** (i) 2 Nos. 63A (25KA) 4P MCCB for ACDBs Supply (ii) 2 Nos. 63A 10 KA TPN MCB for LDBs (iii) 6 Nos. 32A 10KA DP MCB for BM AC, RPDB Supply etc.	No.	1		
5	**(A) UPS INCOMING DB:** Supply of all required materials and fixing of input UPS box (Company made Double Door) having provision of the following arrangement complete with all respects per the direction of engineer in charge. **Incoming:** 1 No. 63A (10KA) TPN MCB, 1 No. 4P AC Surge Protection Device (SPD) 320V **Outgoing:** 2 Nos. C40A/30mA 2P RCBO Type A	No.	1		

	(B) UPS OUTGOING DB: Supply of all required materials and fixing of output UPS box (Company made Double Door) having provision of the following arrangement complete with all respects per the direction of engineer in charge. ***Incoming:*** 1 no. C40A/30mA 2P RCBO Type A ***Outgoing:*** 3 No. 32A (10KA) DP MCB	No.	1		
6	Supply & fixing of 63A double pole Changeover with enclosure (side handle) complete	No.	1		
7	**ACDB / RAW POWER DB/ LIGHT DB / COMPUTER DB:** Supply and installation of following metallic double door MCB Distribution Board with 'C' curve MCB having breaking capacity of 10 KA (minimum) complete with busbar, interconnection, painting, mounted on flat iron frame on wall/flushed with finished wall by chase cutting, mending good to original finish painting etc. as required. Name plate & number of DBs are to be fixed up on front door of DBs for their identification.				
a	**ACDB :** Consumer unit TPN MCB DB (Double Door) complete with busbar and the following MCBs. **INCOMING :** 1 No. 415V 63A (10KA) TPN MCB **OUTGOING :** 12 Nos. 240V 32A (10 KA) SP MCB	No.	2		
b	**LDB :** Consumer unit TPN MCB DB (Double Door) complete with busbar and the following MCBs. **INCOMING :** 1 No. 415V 40A (10KA) TPN MCB **OUTGOING :** 12 Nos. 240V 16A (10 KA) SP MCB	No.	2		
c	**CDB 1 :** Consumer unit SPN MCB DB (Double Door) complete with busbar and the following MCBs. **INCOMING :** 1 No. C32A/30mA 2P RCBO Type A **OUTGOING :** 10 Nos. 240V 10A (10 KA) SP MCB	Nos.	1		
d	**CDB 2: (To be installed in Conference Hall)** Consumer unit SPN MCB DB (Double Door) complete with busbar and the following MCBs. **INCOMING :** 1 No. C32A/30mA 2P RCBO Type A **OUTGOING :** 6 Nos. 240V 10A (10 KA) SP MCB	No.	1		
e	**Security Equipment DB :** Consumer unit SPN MCB DB (Double Door) complete with busbar and the following MCBs. **INCOMING :** 1 No. C32A/30mA 2P RCBO Type A **OUTGOING :** 6 Nos. 240V 10A (10 KA) SP MCB	No.	1		
f	**GATE LIGHT DB:** Consumer unit SPN MCB DB (Double Door) complete with busbar and the following MCBs. **INCOMING :** 1 No. 32A (10KA) DP MCB **OUTGOING :** 4 Nos. 240V 10A (10 KA) SP MCB	No.	1		
8	**SUBMAIN WIRING** Supply & laying of submain wiring with following sizes 1100 V grade, single core, PVC insulated multi stranded copper conductor wire (IS:694) in pre - laid (as per ISI) M.S. conduit including interconnection, painting etc. as required to be completed in all respect.				
a	With 2 nos. 6 Sq.mm + 1 no. 1.5 Sq.mm. PVC insulated copper wire **from UPS Outgoing to UPS O/G DB/Security DB/CDB and Main Panel to RPDB.**	Mtr.	80		
b	With 2 Nos. 4 Sq.mm. + 1 No. 1.5 Sq.mm. PVC insulated copper wire **from ACDB to AC power point**.	Mtr.	100		

9	**(A) COMPUTER SOCKET OUTLET** cluster point including supply and fixing of modular type socket outlet clusters components complete in all respect as detailed below. Each computer socket outlet cluster comprising the following **5 Nos. 6/10A 5 pin modular type approved sockets 1 No. 16A modular type common controlling switch with indicator** with 2 Nos. 2.5 Sq.mm. + 1 x 1.5 Sq.mm. PVC insulated copper wire in pre - laid (as per ISI) M.S. conduit including interconnection, painting etc. as required to be completed in all respect from CDB to Computer point. **(To be installed in Work Stations)**	Nos.	12		
	(B) COMPUTER SOCKET OUTLET cluster point including supply and fixing of modular type socket outlet clusters components complete in all respect as detailed below. Each computer socket outlet cluster comprising the following **3 Nos. 6/10A 5 pin modular type approved sockets 1 No. 16A modular type common controlling switch with indicator** with 2 Nos. 2.5 Sq.mm. + 1 x 1.5 Sq.mm. PVC insulated copper wire in pre - laid (as per ISI) M.S. conduit including interconnection, painting etc. as required to be completed in all respect from CDB to Computer point. **(To be installed For Switch, CCTV, Fire Alarm, TV supply etc.)**	Nos.	6		
	(C) RAW POWER SOCKET OUTLET cluster point including supply and fixing of modular type socket outlet clusters components complete in all respect as detailed below. Each computer socket outlet cluster comprising the following **2 Nos. 16/20A 5 pin modular type International sockets. 1 No. 16/20A modular type controlling switch** with 2 Nos. 2.5 Sq.mm. + 1 x 1.5 Sq.mm. PVC insulated copper wire in pre - laid (as per ISI) M.S. conduit including interconnection, painting etc. as required to be completed in all respect from RPDB to Raw Power Outlet. **(To be installed at SWCs & Canteen)**	Nos.	6		
10	Supply & fixing of Company made approved make modular type AC socket & Top with 25A SP MCB.	Nos.	7		
11	Supply & fixing of Company made approved make modular type AC socket & Top with 16A SP MCB to be installed at Pantry.	Nos.	1		
12	Supply & Installation of 160Amp 4 Pole MCCB with enclosure near Main Gate for controlling line.	No.	1		
13	**Copper Plate Earthing:** Supplying and fixing of copper plate earth station with 600x600x3mm thick copper plate including all accessories such as watering pipe and funnel and providing masonary enclosure at top with cover plate i/c excavation of pit, supplying and filling of salt charcoal, refilling of pit etc complete as reqd as per IS-3043-1987. The voltage between neutral & earth must be below 1 volt	No.	1		
14	Supply of materials, laying under ground/walls/floor, making end termination and testing of **1x10 sqmm multistrand copper wire to be inside PVC pipe from earth pit to UPS Outgoing DB** and complete.	Mtr.	100		
15	**Chemical Earthing:** Supply of material and installation of earth electrode made out of 50mm dia class B G.I. pipe in pipe of 3 metre long with arrangements for fitting / termination of G.I. flat with G.I. nut bolts and washers including cost of backfill compound and good quality soil, water puring arrangements, brick masonary enclosure on top with removable CI over complete with labour for excavation of pit conforming to IS: 3043/1987.	No.	2		

16	Supply of materials, laying under ground/walls/floor making end termination and testing of **8 SWG G.I. wire from earth pit to Main panel** as required.	Mtr.	60		
17	Supply & Fixing of **Cu Earth Strip (25 x 3 x 180 mm)** with insulators at UPS room	No.	1		
18	**POINT WIRING:** Point wiring with 1100 V grade 3 nos. single core 1.5 sq.mm. and 1 for earth PVC insulated stranded copper conductor wire (IS:694) through suitable size M.S. conduit (ISI marked)by thred cutting, complete with junction box, circular box, elbows, bends, couplers and other accessories on surface above false ceiling or concealed by chase cutting on wall from light & fan switch board to light, fan & 6A socket outlet on the same switch board or separately mounted switch board. The work includes supply and fixing of all materials such as modular type 6A switch for light and fan point, 6A 2/3 pin shuttered socket outlet with switch in each switch board, 3 plate ceiling rose / angle or batten holder etc. as required. The point wiring also includes circuit wiring with 1100 V grade 2 nos. single core 2.5 sq.mm. + 1 no. single core 1.5 sq.mm. PVC insulated stranded copper conductor cable (IS:694) through suitable size M.S. conduit as described above from DB to switch board, interconnection, mending good all damages to original finish, painting etc.				
A	1/2/3 Light control by 1 switch (this also include UPS light point)	Nos.	60		
B	Wall Fan point wiring with **3 Pin** socket	No.	16		
C	Exhaust fan point	Nos.	5		
D	1x16A 2/3 pin modular socket with switch on separate switch board outside the Cash Room, Locker Room, Record Room and Stationary Room complete with wiring & Suitable Top to be provided for supply.	Nos.	2		
E	3 pin 6/10A modular socket with switch in each board	Nos.	10		
19	Supply & installation of cordless Call Bell	No.	1		
20	Supply & Fixing of **36W-2'x2' LED Panel light** recessed mounted of Phillips / Wipro / CG / HPL / Syska / Havells make of lumens >3000 complete with all accessories.	Nos.	25		
21	Supply & Fixing of **15W LED Round Downlighter** recessed mounted of Phillips / Wipro / CG / HPL / Syska / Havells make complete with all accessories.	Nos.	15		
22	Supply & Fixing of **6W LED Round Downlighter** recessed mounted of Phillips / Wipro / CG / HPL / Syska / Havells make complete with all accessories.	Nos.	30		
23	Supply & Fixing of **LED Strip light (Blue Colour)** of Phillips / Wipro / CG / HPL / Syska / Havells make complete with all accessories.	Mtr.	60		
24	Supply & fixing of **18/22W LED T5 Batten fitting** of Phillips / Wipro / CG / HPL / Syska / Havells complete with all respect.	Nos.	15		
25	Supply & fixing of **9W LED Bulb** of Phillips / Wipro / CG / HPL / Syska / Havells complete with all respect.	Nos.	5		
26	Supply & Fixing of **35W LED Street Light** complete with mounting pole of Phillips / Wipro / CG / HPL / Syska / Havells make complete with all accessories.	Nos.	2		
27	Supply & fixing of **450MM METAL BLADE Wall Fan** with **3 Pin Top** complete with all respect. (Make: Polar, Orient, CG, Havells, Usha,)	Nos.	16		
28	Supply & fixing of **1200MM BLDC Ceiling Fann** with all accessories complete with all respect. (Make: Atomberg, Orient, CG, Havells, Bajaj)	Nos.	3		

29	Supply & fixing of **230MM Exhaust fan with cutting the wall for mounting** complete with all respect. (Make: Polar, Orient, CG, Havells, Usha,)	Nos.	5		
30	Supply and fixing of information outlet box suitable for **1 nos. RJ 45** terminals including mounting box (PVC) & top cover, to be fixed a concealed manner in partition by necessary bolts & nuts including Supply and laying of **E-CAT 6 UTP cable** for the Data Circuit through the PVC conduit, Rate to include for termination on both end as directed at site. (MAKE- D-LINK, AMP, HCL, Legrand, DIGISOL)	Nos.	20		
31	Supply of 2 mtr. Long E-CAT 6 PATCH CHORD (Make: D-LINK, AMP, HCL, Legrand, DIGISOL)	Nos.	20		
32	Charges for making and submitting 1 set (2 nos.) of computerised neat & clean Electrical Single Line drawing showing Main Panel, DBs etc.	Set	1		
33	Charges for making and submitting 1 set (2 nos.) of computerised neat & clean LAN cabling drawing showing Modem Rack, I/O box location etc.	Set	1		
AIR CONDITIONING WORK					
1	**Air Conditioners :-** Supply and installation of **Cassette Type 2.0 tonne capacity Air-Conditioners (5 Star, Inverter)** of (Voltas / Blue star / Hitachi / Carrier / Daikin / O-general / LG / Panasonic / Godrej / Lloyd including fixing of outdoor units with steel stand all accessories complete in all respect.	NOS.	6		
	Air Conditioners :- Supply and installation of **Cassette Type 1.5 tonne capacity Air-Conditioners (5 Star, Inverter)** of (Voltas / Blue star / Hitachi / Carrier / Daikin / O-general / LG / Panasonic / Godrej / Lloyd including fixing of outdoor units with steel stand all accessories complete in all respect. **(To be installed at BM's Chamber)**	NOS.	1		
2	Supply & installation of Extra copper pipe with insulation for ACs if required.	MTR.	140		
3	Supply & installation ofsuitable CPVC drain pipe of good quality for Acs discharge water if required.	MTR.	140		
4	Supply & installation of suitable perforated 6" Aluminium tray along with hanging rod from ceiling complete for copper pipe and CPVC drain pipe laying.	MTR	150		
5	Supply and installation of 4/5 KVA Automatic voltage Stabiliser complete with all assessories. (Make: Vguard / Microtec)	Nos.	7		
		Total			
# GST EXTRA AS APPLICABLE					

AIR CONDITIONING WORK		Unit	Qty.	Rate(Rs)	Amount(Rs)
1	Supply and Installation, testing and commissioning of **2.0 TR Inverter Cassette Air conditioners(5 star)** fitted with rotary /scroll/swing compressor with standard installation kit (Excluding cost of copper piping) with all fixing accessories, **Ready made powder coated MS stand/angle heavy duty support for outdoor units**, first fill of eco-friendly refrigerant (R32 or R410a) complete. Piping to be laid through nitrile rubber sleeve with white taping and to be clamped neatly. Wall openings are to be sealed and finished using cement plastering-Banking Hall	Nos.	5		
2	**Air Conditioners :-** Supply and installation of **Split Type 1.5 tonne capacity Air-Conditioners (5 Star, Inverter)** of (Voltas / Blue star / Hitachi / Carrier / Daikin / O-general / LG / Panasonic / Godrej / Lloyd including fixing of outdoor units with steel stand all accessories complete in all respect.	NOS.	1		
3	Supply & installation of Copper pipe with insulation for Cassette/Split ACs.	MTR.	150		
4	Supply & installation of heavy duty UPVC drain pipe of good quality for ACs.	MTR.	120		
5	Supply and installation of 5 KVA Automatic voltage Stabiliser complete with all assessories. (Make: Vguard / Microtec)	Nos.	5		
6	Supply and installation of 4 KVA Automatic voltage Stabiliser complete with all assessories. (Make: Vguard / Microtec)	Nos.	1		
		Total			-
# GST EXTRA AS APPLICABLE		**G. Total**			-