BILL OF QUANTITY OF ELECTRICAL WORKS N/W: PROVIDING ELECTRICAL WORKS FOR BANK OF BARODA , TEGHARA BRANCH

A.	SUB HEAD-I (WIRING)				
B.	SUB HEAD-II (DISTRIBUTION BOARDS & PANELS)				
C.	SUB HEAD-III (SUPPLY OF FIXTURES & FANS)				
D.	SUB HEAD-IV (SUPPLY & MAKING OF EARTHPITS, REMOVING OF ITEMS, RUBBER MAT)				
E	SUB HEAD - V (SUPPLY & FIXING OF NETWORKING (DATA CABLE) WORKS)				
	TOTAL-				
	G.S.T(Extra as applicable)				
SL. NO.	ITEM OF WORK	UNIT	QTY	RATE	AMOUNT
SUB HEAD - I (WIRING)					
1	Point wiring with 1100 V grade 3 nos. single core 1.5 sq.mm.FR and 1.5 sq.mm.for earth PVC insulated stranded copper conductor wire (IS:694) through suitable size PVC 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 for wall fan , 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.FR + 1 no. single core 1.5 sq.mm.FR PVC insulated stranded copper conductor cable (IS:694) through suitable size PVC conduit as described above from DB to switch board, interconnection, mending good all damages to original finish, painting etc. (maximum ten switch for one circuit)				
a	1 Light control & ,ceiling fan ,exhaust fan by 1 switch	Each	30		
b	2 Light control by 1 switch	Each	13		
c	Wall fan point with 6A 3 pin modular socket & 5/6 amps modular switch	Each	12		
2	Supply & fixing suitable size GI box with modular plate and cover in front on surface/ in recess i/c pvdg & fixing 5 pin 5/6 amp modular socket outlet and 5/6 amps modular switch, connection, painting etc as reqd.	Set	8		
3	Supply & fixing AC controller unit consisting of one no 25 amp AC controller having overload protection starter, one no 20/25 amp SPN MCB and socket outlet, all fixed on a modular plate complete with metal box and recessed in wall as reqd. With Wiring for A.C. Point with 2 x 4 sqmm FR PVC insulated copper conductor single core cable in surface/recessed PVC conduit / PVC Casing - n Capping along with one no 4 sq mm FR PVC insulated copper conductor single core cable for loop earthing as required	Each	6		

4	Supply and laying of 3x10 submains wiring in PVC conduit Supply and laying of 2x10 sq mm + 1x10 sq mm FR (Fire Resistant) stranded Cu. Wire in PVC Conduit (HMS Grade) through wall / floor / above false ceiling / partition etc. The work shall also include for cutting chase for conduits and moulded boxes, if required, in the wall/ floor (Without damaging the building/wall) along with clamping the conduit at every 600mm interval & finally finishing the surface & matching the same with the existing surface.The rate should include the cost of all materials, labour,T&P, scaffolding, shifting of furniture, carting away the debris and cleaning the floor etc.	RM	0		
5	Supply and laying of 4x10 flexible wire in PVC Conduit (LT Panel to Raw feed D.B. & Lt Panel To UPs Panel) Supply and laying of 3x10 sq mm + 1x10 sq mm FR (Fire Resistant) stranded Cu. Wire in PVC Conduit (HMS Grade) through wall / floor / above false ceiling / partition etc. The work shall also include for cutting chase for conduits and moulded boxes, if required, in the wall/ floor (Without damaging the building/wall) along with clamping the conduit at every 600mm interval & finally finishing the surface & matching the same with the existing surface.The rate should include the cost of all materials, labour, T&P, scaffolding, shifting of furniture, carting away the debris and cleaning the floor etc.	RM	45		
6	Sub Main Wiring from. Raw D.B with 2 x 6 sqmm FR PVC insulated copper conductor single core cable in surface/ recessed PVC conduit / PVC Casing - n Capping along with 1 x 6 sq mm FR PVC insulated copper conductor single core cable for loop earthing as required. The rate should be quoted considering wastage. The measurement shall be taken to the place where the wire start and end.	Mtr.	92		
7	Supply & fixing suitable size GI box with modular plate and cover in front on surface/ in recess i/c pvdg & fixing 6 pin 15/16 amp modular socket outlet and 15/16 amps modular switch, connection, painting etc as reqd. with Circuit wiring with 2 x 2.5 sqmm FR PVC insulated copper conductor single core cable surface/ recessed PVC conduit / PVC Casing - n Capping along with one no 1.5 sq mm FR PVC insulated copper conductor single core cable for loop earthing as required. With	Each	5		
8	Supply & fixing remote controlled call bell buzzer suitable for 230 V AC/ Battery operated with remote type bell push as reqd.	nos.	1		
9	Supply & fixing of computer point with 3 no. 5 pin 5/6 amp modular socket with modular type switch for UPS Power and 2 no. 5 pin 5/6 amp modular socket with modular type switch phenolic laminated sheet suitable size PVC/G.I. box for RAW Power. As per instruction of Bank/Ele.Er./as required including their wiring for UPS as well as RAW Power socket for computer with 2 x 2.5 sqmm FR PVC insulated copper conductor single core cable in surface/ recessed PVC conduit / PVC Casing - n Capping along with one no 2.5 sq mm FR PVC insulated copper conductor single core cable for loop earthing as required.	Each	11		
10	Supply & fixing of computer point with 3 no. 5 pin 5/6 amp modular socket with 1 nos 15 amp modular type switch for UPS Power. As per instruction of Bank/Ele.Er./as required including their wiring for UPS as well as RAW Power socket for **NETWORK SWITCH, CCTV & FIRE ALARM SYSTEM** with 2 x 2.5 sqmm FR PVC insulated copper conductor single core cable in surface/ recessed PVC conduit / PVC Casing - n Capping along with one no 2.5 sq mm FR PVC insulated copper conductor single core cable for loop earthing as required. The circuit wiring is to be done from **UPS PANEL** till the location of **NETWORK SWITCH, CCTV & FIRE ALARM SYSTEM & connected to 6/10amp mcb mentioned in SUB HEAD II point no-4.**	Each	3		

11	Supply & fixing of approved make including square face plate and M.S. housing box with RJ-11 socket etc complete in all respect conduits as required.(Each Section Head work station have 2 no. of RJ 11 Socket) with Supplying and drawing 2 pair 0.5 sqmm FR PVC insulated annealed copper conductor, unarmored telephone cable in PVC conduit as required	Each	7		
12	Providing and fixing of telephone tag block (Krone type) of 50 pair housed in GI box with cover of suitable size including termination	Each	1		
13	Supply & fixing Of 15Amp Modular Switch & Socket with modular type switch phenolic laminated sheet suitable size PVC/G.I. box along with 15 TOP outside Strong Room. The point wiring also includes circuit wiring with 1100 V grade 2 nos. single core 2.5 sq.mm.FR + 1 no. single core 1.5 sq.mm.FR PVC insulated stranded copper conductor cable (IS:694) through suitable size PVC conduit from this box to strong room switch board. The wiring from light DB to this box is already included in point wiring description.	Each	1		
14	**1 Light control by 1 DP OUTPUT OF DISTRIBUTION BOX/INVERTER WITH 5 W LED BULBS (COLOR-YELLOW,BLUE,RED,GREEN)** -------Point wiring with 1100 V grade 3 nos. single core 1.5 sq.mm.FR and 1.5 sq.mm.for earth PVC insulated stranded copper conductor wire (IS:694) through suitable size PVC conduit (ISI marked)by thred cutting, complete with junction box, circular box, elbows, bends, couplers and other accessories on surface above false ceiling or pipe from distribution box DP output side . The work includes 3 plate ceiling rose / angle or batten holder etc. as required. **The point wiring is to be done from distibution box DP output to LED Bulb. One point wiring from Invertor Output to LED bulb.The location OF 5W BULB shall be near Main Entrance door and visible in CCTV camera. The rate shall be inclusive of 5W COLOR LED BULB.**	Each	3		
15	Supply & laying for sub main from L.T line & DG line following sizes and core PVC/XLPE insulated PVC sheathed, heavy duty, armored electrical cable with aluminum conductor for working voltage up to and including 1100 volts.(Conforms toIS:1554.part-1) with 8 no. SWG die bare copper conductor wire for loop earthling, proper laying on wall or roof, thumbnail clipping and use proper size cable gland for cable sport etc. as required. all complete as per instructions of Elec.Er. / Architect.				
A	35 sq.mm, 3.5 core LT Cable	Mtr.	45		
B	16 sq mm,3.5 core LT Cable	Mtr.	0		
	TOTAL SUB HEAD-I				
SUB HEAD - II (DISTRIBUTION BOARDS & PANELS)					
1	Supplying & Fixing following ways three pole and neutral sheet steel MCB DB, 415 volts on surface/ recessed complete with tinned copper busbar, neutral busbar, earth bar din bar detachable gland plate interconnections, phosphatised and powder painted i/c earthing etc as reqd. (But without MCB / RCCB/Isolator)				
	a) 4+18 Way double door TPN DB Suitable for MCCB as Incomer.	Each	1		
	B) 16 Way double door SPN DB.	Each	2		
2	Supply & fixing 5 amps to 32 amps rating 240 V 'C' series MCB suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc as reqd.				
A	40 A 10 KA FP MCB "C"	Each	1		
B	40 A 10 KA DP MCB "C"	Each	2		
C	6/10 A 10 KA SP MCB "C"	Each	40		

3	Supply & fixing of indoor cubicle extensible type fully compartmentalized Distribution panel suitable for operation on 415 volts 50 Hz 3 phase 4 wire AC distribution system, suitable for 35 KA short circuit rating, confirming to IP:42 degree of protection, made up of 1.6 mm thick CRCA sheet, wall/ floor mounted, dust & vermin proof enclosure, having hinged and earthed cover on front, having neoprene gasket/ katings stuck to the doors, duly painted with 65- 75 microns thick dry epoxy powder paint after 7 tank process of degreasing, derusting etc comprising of the following switchgears complete with all interconnections with suitable size of copper strip/hard drawn PVC insulated copper cable i/c keeping the panel in position, minor civil works as necessary, painting, sign writing etc complete as required (as per specifications of Panel attached) TEST REPORT: FOLLOWING REPORTS HAVE TO BE PROVIDED BY THE VENDOR AT THE TIME OF SUBMISSION OF BILL:. 1) FINAL AS BUILT PLAN IN THREE COPIES DRAWN TO THE SCALE, PRINTED IN CASE OF CAD AND BLUE PRINT, IN CASE OF MANUAL DRAWING. 2) QUALITY REPORT INDICATING THE ITEMS USED WITH THEIR MAKES. 3) PANEL MANUFACTURER'S CPRI TEST REPORT. 4) ROUTINE TEST REPORT OF PANEL FOR IR & HV TEST. 5) GUARANTEE/WARRANTY CARD OF PANEL MANUFACTURER.(Panel Size- H-1400mm, W-900mm & D-300mm)				
	INCOMING:				
	a) 100 amp 4 pole MCCB not less than 25 KA having Thermo magnetic type release for a range of 80% to 100% for Overload and short circuit complete with rotary handle etc as reqd.: 1 no				
	b) 63 amp 4 pole heavy duty I-II-I type cubicle changeover switch: 1 no				
	METERING:				
	a) Multifunctional meter displaying A/V/PF & Hz along with 3 nos Suitable size CTs & HRC type protection fuse etc as reqd: 1 nos				
	c) LED type phase indicationg lamp in phase distinguishing colors with HRC fuse : 6nos				
	BUS BAR:				
	Main Bus Bar: 4 strip 200 amp bus bar made of electrical grade aluminium strip enclosed in separate bus bar chamber, provided with DMC/ SMC bus bar support duly insulated with heat shrinkable sleeves in distinct colours as reqd: 1 set				
	Emergency Load Bus Bar: 4 strip 150 amp bus bar made of electrical aluminium copper strip enclosed in separate bus bar chamber, provided with DMC/ SMC bus bar support duly insulated with heat shrinkable sleeves in distinct colours as reqd: 1 set				
	OUTGOINGS:				
	32 amp, 10 KA D Series FP MCB : 3 nos.				
	32 amp, 10 KA D Series DP MCB: 3 nos.				
	25 amp 10 KA C series SPN MCB: 8 nos.				
	40 A rotary type Phase selector: 2 no				
	40 amp DP Manual Change Over For UPS Charging-1 nos.	Set	1		

3	Supply & fixing of indoor cubicle type UPS panel suitable for operation on 415 volts 50 Hz, 3 phase 4 wire AC distribution system, AC supply, suitable for 35 KA short circuit rating, confirming to IP:42 degree of protection, made up of 1.6 mm thick CRCA sheet, wall/ floor mounted, dust & vermin proof enclosure, having hinged and earthed cover on front, having neoprene gasket/ katings stuck to the doors, duly painted with 65- 75 microns thick dry epoxy powder paint after 7 tank process of degreasing, derusting etc comprising of the following switchgears complete with all interconnections with suitable size of copper strip/hard drawn PVC insulated copper cable i/c keeping the panel in position, minor civil works as necessary, painting, sign writing etc complete as required. (as per specifications of Panel attached)	Set	1		
	INCOMING:				
	a) 63 amp 4 pole MCCB 10 KA D series.: 1 no				
	METERING:				
	a) Digital Volt meter displaying voltage of each phase along with 3 nos HRC type protection fuse etc as reqd: 1 nos				
	UPS INPUT & OUT PUT				
	b) 6/10 A 10 KA SP MCB "B": 3 nos for **NETWORK SWITCH, CCTV & FIRE ALARM SYSTEM to be connected with required wiring with UPS output**				
	UPS INPUT & OUT PUT				
	4 no 40 A SPN MCB 10KA with 4 no 40 amp Industrial type socket out let and Top with connection o/g MCB with PVC insulated copper conductor wire as required (For 2 no. main input and 1 no. output)				
	TOTAL SUB HEAD-II				
1	Supplying, installation, testing & fixing of 6W/9W LED batten suitable for indoor application.	Each	2		
2	Supplying of stepped type electronic fan regulator on the existing modular plate switch box i/c connection but excluding modular plate etc as reqd.	Each	2		
3	Supplying of 36W LED (2'X2') surge protrction LED luminaire suitable for armstrong ceiling and grid ceiling complete with separate electronic drive/approved make by architect/Ele.Consultant etc as reqd	Each	15		
4	Supplying, installation, testing & fixing of recess mounted circular LED (dia-6") downlighter 12/15 Watt LED suitable for armstrong ceiling and grid ceiling complete with separate electronic drive/approved make by architect/Ele.Consultant etc as required.	Each	22		
5	Supplying, installation, testing & fixing of 1X36 W LED tube light fitting powder coated batten with PC tube	Each	7		
6	Supplying, installation, testing & fixing of Exhaust fan 300mm sweep HEAVY DUTY EXHAUST make- CROMPTON / approved equivalent. (UPS ROOM, TWO TOILETS)	Each	3		
7	Supplying, installation, testing & fixing of 1200 mm sweep energy efficient ceiling fan, connection with 1.5 sqmm PVC ins copper condtr, testing, commissioning etc as reqd.	Each	2		
8	Supplying of oscillating and tilting type wall bracket fan of 400 mm sweep i/c fixing the same on wall, connection with 1.5 sqmm PVC insulated copper conductor, testing, commissioning etc as required.	Each	12		

9	Supply and instalation of flexible LED strip light complete with driver unit, 230v,50 Hz ,in the from of or with profile complete.	RMT	0		
	TOTAL SUB HEAD-III				
SUB HEAD - IV (SUPPLY & MAKING OF EARTHPITS, REMOVING OF ITEMS, RUBBER MAT)					
1	Providing chemical/mineral maintenance free earthing system comprising of copper coated earth electrode 3 metre length and 17.2 mm outer dia along with 25 kg earth conductivity enhancing back fill mineral compound for earth inspection pit etc. as required. OR Earthing with copper earth plate 600 mm X 600 mm X3 mm thick including accessories, and providing masonary enclosure with cover plate having locking arrangement and watering pipe 2.7 metre long etc.with charcoal / coke and salt as required.	Set	2		
4	S/L 4 mm dia copper wire on surface or in recess as reqd.	Mtr.	52		
5	High voltage insulation mat are relatively thin mats of thicknes (2mm to 3.5mm) made of elastomeric polymers materials having a high insulation restance, thus imparting total safety of humen being from any leakage current.(UPS Room)	Sqft	45		
6	KIT-KUT:- Supply and fitting of 3 nos. 200 Amp. Porcelien Kit Kut on suitable size of wooden board including connections etc. as required.	SET	1		
7	Dismantle & Removal of all existing electrical items i.e. wiring,wall fans, ceiling fans lights, DB's, Main Panel etc.of Branch ,debris from site, carrying and disposal of malba to dumpyard. as per bank/branch incharge direction.	Lumpsum	0		
	TOTAL SUB HEAD-IV				-
SUB HEAD - V (SUPPLY & FIXING OF NETWORKING (DATA CABLE) WORKS)					
1	Supply & fixing of approved make including square face plate and M.S. housing box with RJ-45 socket etc complete in all respect including cat-6 Data cable conduits, identification of the hub				
	a) RJ-45 socket	Set.	10		
	b) Cat-6 Data cable with PVC conduit	Mtr.	315		
2	Supply & fixing Commissioning of 9U rack for 24 line Net all complete as required.	Set.	1		
3	Supply & fixing Commissioning of 2 Meter Patch Cord as required, all complete as per requirment.	Set.	10		
				TOTAL SUB HEAD-V	