

BOQ FOR INTERIOR AND FURNISHING WORKS OF INDIAN BANK BRANCH & ATM AT KESHAR NAGAR ,JAIPUR.					
S. NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b>INTERIOR PART -1</b>				
<b>1</b>	<b>PARTITION</b>				
	<b>NOTE:-</b>				
	<b>Measurement and payment shall be done as per following.</b>				
a)	Visible surface below false ceiling,				
b)	Measurement for one face of Partition,				
c)	In case of height difference of partition below false ceiling average ht. of both surfaces and sides shall be taken,				
d)	1mm laminate as per approved shade and make.				
	<b>Purchase Bills for Patch Fitting, Handles,Lock,Aluminium,Gypsum,India Gypsum Frame,Ply,Laminate, &amp; All accessories to be submitted along with Final Bills.of Contractor</b>				
e)	Horizontal surface shall be measured for purpose of payment.				
<b>1.1</b>	<b>FULL HT. PARTITION</b>				
	Providing and fixing in position Full Height Partition consisting of Aluminium hollow section of 65mm x 37mm size,1.5mm thick, of <b>JINDAL / INDAL</b> as internal frame structure at required spacing but not exceeding 600mm centre to centre in either direction fixed to floor & ceiling by means of rawl plugs/dash fasteners on both ways,The complete partition should go above the false ceiling except that partition above false ceiling shall not have laminate on both side. finished with 6mm comm. ply on both sides & finished with laminate 1mm thick on both side & edges of door/window openings inclusive of proving & making grooves as per approved shade and make complete as per architectural drawing inclusive of providing & making openings for 12mm th.Toughened glass panels & door, (etching with Birla 3M film digital lazer cut ) on Glass as per approved design in all partitions etc.inclusive of polishing of grooves complete to the satisfaction of Architect/ Bank's Engineer.	13	Sqm		
<b>1.2</b>	<b>GYPSUM PARTITION</b>				
	P/F 75mm the Full height Gypsum Partition fabricated out of G.I.frame work complete with P/F 12mm th.gypsum sheet on one side over the frame work & 1mm th. Laminate on other side over 6mm comm. ply over G.I frame work I/C P/F 1mm skirting laminate as per appvd. Shade over the 6mm comm. Ply over G.I.frame work complete with P/A 2-3 coats of OBD as per appvd.sample.	40	Sqm		
<b>1.3</b>	P/F 75mm the Full height Gypsum Partition fabricated out of G.I.frame work complete with P/F 12mm th.gypsum sheet on both side over the G.I frame work complete with P/A 2-3 coats of OBD as per appvd.sample.	7.5	Sqm		

<b>1.4</b>	<b>LOW HT. PARTITION</b>				
	Providing and fixing in position Low Height Partition Public Counter(4'-0" & Cash Counter(7'-0") consisting of Aluminium hollow section of 65mm x 37mm size,1.5mm thick of JINDAL / INDAL as internal frame structure at required spacing but not exceeding 600mm centre to centre in either direction fixed to floor by means of rawl plugs/dash fasteners finished with 6mm comm. ply on both sides with screws & hits finished with laminate 1mm thick on both side as per approved shade & make complete as per architectural drawing inclusive of providing & fixing 10mm th. Glass free standing etching with Birla 3M film digital lazer cut )on Glass as per approved design in all partitions etc.maching cut with edge polish P/F SBW 65x31mmmoulding on free end of low ht. partition. complete with P/A melamine spray finish on wooden surface to the satisfaction of Architect/Bank's Engineer.	6	Sqm		
<b>2</b>	<b>DOORS</b>				
<b>2.1</b>	<b>Glazed Door with fixed glazing</b>				
	P/F 12 mm thk,toughened glass,door and 18" long s.s handles on both sideswith Digital Lazer cut Birla 3M Film,as per arch.drg and appvd.Design. inclusive of P/f 12mm thk.Toughened ,Fixed, Side Glazing panels (etching same asDoor)with frameless fittings, of Dorma /Hettich,with following parts, viz: PT1040 forover/side panel,PT 1041 connector for Side/Upper Panel,PT1020 Upper patch,PT1010 Bottom Patch,PT1049 E floor Lock ,PT1052 Strike Plate Floor Spring BTS 84inclusive of of P/F digital Lazer Cut Birla 3mm Film as per appvd. Drg. Certificate for toughening to be attached.				
<b>a)</b>	Toughened Door	5	Sqmt		
<b>b)</b>	Toughened Fixed Glazing	3	Sqmt		
<b>2.2</b>	extra for P/F 12mm th.clear toughened etched glass in front of cash counter partition else,held together with s.steel clamps & P/A melamine spray finish on SBW Surfaces as per arch.drg.	1.5	Sqmt.		
<b>2.3</b>	<b>Flush Door</b>				
	Providing and fixing non decorative type 38mm thick Flush Door Shutters having core of having core of block board construction with frame of first class hardwood & well matched commercial 3ply veneering with vertical grains or cross bands & face veneers on both faces of shutters inclusive of providing and fixing lipping with second class SB wood battens having 25mm minimum depth on all edges of shutter,finished with1.0mm thick laminate on both sides & 40x100 mm SB wood frame,SBW 12x12mm beadings Item includes providing and fixing <u>4 no.s 100mm S.S hinges</u> & handles and all necessary hardware & providing and fixing 150 mm S.S tower bolt, <u>door closer of ISI make(without cover plate)</u> and S.S door stopper.All wooden surface shall be polished with melamine spray finish as per architectural drg.ncluding providing and fixing 37x3mm M.S flat iron 38mm long hold fast (6 nos minimum) screwed to frames embedded in cement concrete 1:3:6 mix (1cement 3 coarsesand: 6 hard stone aggregate in wall as per requirement. complete to the satisfaction of Architect/Bank's Engineer.inclusive of <u>P/F 7 lever godrej</u> , Mortise locks with pair of S.S handles.	8	Sqmt		

<b>2.4</b>	<b>PARTLY GLAZED FLUSH DOOR</b>				
	<p>Providing and fixing 38mm thick Partly Glazed door having core of block board construction with frame of first class hard wood &amp; well matched commercial 3ply veneering with vertical grains or cross bands and face veneers on both faces of shutters inclusive of lipping with second class SB wood battens having 75mm as minimum depth &amp; 38mm wide on all edges of shutter,finished with 1.0mm thick laminate as per approved shade &amp; make on both sides complete with providing and fixing S.S hinges of 100 mm (4no.s) &amp; 5mm thick etched glass with Digital lazercut Birla 3M Film over the glass as per arch. Drg.&amp; 40x100mm SBwood frame work complete with 12x12mm SB wood beadings. Item includes providing and fixing S.S (150mm) tower bolt, S.S door stopper &amp; handles etc complete with <u>concealed door closer of ISI mark (door king)</u> with all wood/veneer surface to be polished with melamine finish and as per architectural drg.including providing and fixing <u>7 lever mortise Lock of Godrej</u> make and godrej night latch for cash cabin door inclusive of locks &amp; latch and a pair of S.S. handles etc. complete to the satisfaction of Architect / Bank's Engineer</p>	7	Sqmt.		
<b>3</b>	<b>STORAGE</b>				
<b>3.1</b>	<p>P/F in position 450mm deep storage full ht./low ht.cabinets having sides partitions shelves &amp; shutters,fabricated out of 19mm comm.ply &amp; 6 mm th.comm Plywood back,with all exposed surfaces to be finished with 1mm thk. Laminate as per approved shade and <u>inside of shutters/internal as per apprvd. Shade to be finished with 0.75mm thk laminate</u> of &amp; P/F Laminate 1mm thk. skirting(100mm)as/arch.drg.and as per appvd.Sample i/c 31x31mm rounded steem beech wood moulding &amp; 6x19 mm steem beech wood edging on edges of comm.board as/arch.drg.complete with with P/F shelves,shutter,drawers etc.i/c P/F necessary hardware telescopic channels of hettich for drawers of S.S.piano hinges as/appvd.sample, <b>8" Long</b> SS Hettich handles(as /appvd sample) in all drawers &amp; shutters ,locking arrangement, 75mm S.S tower bolts,<u>Hettich/godrej locks in all shutters &amp; drawers</u>,magnet catcher, painting the exposed internal surfaces of block board with 2-3coats of synthetic enamel paint with melamine finish on wood surface with as per arch drg. <u>inclusive of P/placing 12mm th.etched plate glass over storage</u> (Purchase bills of handles/locks to be submitted with final bills)</p>	28	Sqmt.		

<b>3.1.1</b>	<b>Overhead storage in hall</b>				
	Providing and fixing in position 300mm deep storage Overhead Cabinets having sides partitions,shelves shutters, fabricated out of 19mm commercia lboard & 6mm thick comm plywood back,with all exposed surfaces to be finished with 1mm thk. Laminate of appvd. shade & inside of shutters finished with 0.75mm thick laminate of as per architectural drawing Item include providing & fixing 31x31mm rounded S B wood moulding 6x19mm SB wood edging on edges of commercial board as per architect drawing complete with shelves,shutttes drawers etc.include providing and fixing necessary hardware,stainless Steel piano hinges as per approved sample,Hettich make handles as per approved sample locking arrangement, S.S. tower bolts,Hettich make locks,magnet catcher,Item shall include painting the exposed internal surfaces of block board with 2-3 coats of synthetic enamel paint melamine finish on wood surface with 6mm comm.ply at rear as per architect drawing & as per site requirements ( <b>ABM &amp; CASH CABIN</b> )	2.5	Sqmt.		
<b>3.2</b>	<b>Overhead Cabinet in Pantry</b>				
	<u>inside of shutters to be finished with 0.75mm thick</u> laminate as per appvd. Sample.as per arch.drg. i/c 31x31mm rounded steem beech wood moulding & 6x19mm steembeech wood edging on edges of comm.board as per arch.drg.complete with shelves,shutter drawers etc.i/c P/Fnecessary hardware ,S.Steel piano hinges as per appvd.sample , <u>8" Long SS Hettich handles (as per appvd.sample)</u> locking arrangement, <u>75mm S.S.tower bolts, Hettich/Godrej locks,in all shutter, magnet catcher,</u> painting the all other exposed internal surfaces of block board with 2-3 coats of synthetic enamel paint & melamine finish on wood surface with 6mm comm.ply at rear as per arch.drg.& as per site requirements the rate should be inclusive of <b>P/F 19mm th.pre-polished granite stone BELOW THE CABINET of rate not less than Rs.175/- per sqft</b> with polished side & half round edge facing towards counter.as per arch.drg.	1	Sqmt.		
<b>3.3</b>	<b>600MM Deep Storage (below Pantry Counter)</b>				
	P/F in position 600mm deep storage cabinets (below pantry counter) having sides partitions,shelves,set of cuttlery drawers & shutters, fabricated out of 19mm comm. ply & 6mm th.comm Plywood back,with all exposed surfaces & to be finished with 1mm thk. Laminate <u>and inside of shutters to be finished with 0.75mm th laminate of Shade</u> as per approved Sample and make as per arch drg i/c P/F 31x31mm rounded steem beech wood moulding & 6x19 mm steem beech wood edging on edges of comm.board as per arch drg complete with shelves,shutter etc.i/c P/F necessary hardware,S.Steel piano hinges as/appvd.sample, <u>8" LONG S.S Hettich handles</u> (as per appvd.sample) locking arrangement, 75mm S.S. tower bolts,Hettich/Godrej locks,magnet catcher Hettich telescopic channels painting the exposed all other internal surfaces of block board with 2-3 coats of synthetic enamel paint & melamine finish on wood surface with 6mm comm.ply at rear as per arch.drg.& as per site requirements	2	Sqmt.		

<b>3.4</b>	<b>LOUVERED SHUTTER CABINET FOR ELECTRICAL MAIN PANEL.</b>				
	Providing and fixing cabinet for housing main electrical panel board, fabricated out of 19mmthick commercial ply finished with 1mm thick Laminate of as per appvd.Sheet on exposed side surfaces. Front shutters to have <u>304 grade perforated SS Panels, 6 No's</u> , three on each shutters as per arch.drg.fabricated out of SB wood inside of shutters,vertical & horizontal and surfaces shall be <u>covered.with 12mm thick gypsum board item</u> shall include providing applying 2-3coats of melamine spray finish on wood surface & synthetic enamel paint in internal surface with all other specifications as per Item no.4.1 above complete to the satisfaction of of Architect /Bank's Engineer.	4	Sqmt.		
<b>3.5</b>	Extra for with P/F 6mm plain lacquered glass as per appvd. Sample over item no.4 fixed and pressed with silicon (near sofas in waiting area )	5	Sqmt		
<b>3.6</b>	Extra for with P/F 6mm patterned lacquered glass as per appvd. Sample over item no.4 fixed and pressed with silicon (near sofas in waiting area )	5	Sqmt		
<b>4</b>	<b>PANELLING</b>				
	<b>NOTE:-</b>				
	<b>Measurement and payment shall be done as per following</b>				
a)	<b>Visible surface below false ceiling,</b>				
b)	<b>1mm thick Laminate as per appvd. Sample &amp; shade,</b>				
<b>4.1</b>	P/F wall panelling consisting of Aluminium frame works 50X25MM of including fixed to wall, at a spacing of not more than 600mm c/c both ways or as per site inclusive of skirting which will have two members og 50x25mm finished with 6mm comm.Ply,finished with 1mm th. Laminate as per appvd sample and shade P/F steem beech wood beading(31x19mm) at edge of panelling complete with Polish & melamine spray finish on wooden surface/5mm grooves as/arch.drg.inclusive of polishing of grooves.	40	Sqm		
<b>4.2</b>	P/F wall panelling consisting of Aluminium frame works 50X25MM, including skirting which shall have two members of 50x25mm,fixed to wall, at a spacing of not more than 600mm c/c both ways and as per Manufacturer Specifications with 4mm Thk. ACP as/arch.drg. no grooves to be given & fixed with Silicon & complete with ACP skirting as per appvd.sample. <b>(IN ATM)</b>	24	Sqm		
<b>4.3</b>	P/F wall panelling consisting of Aluminium frame works 50X25MM, including skirting which shall have two members of 50x25mm,fixed to wall, at a spacing of not more than 600mm c/c both ways and as per Manufacturer Specifications with 4mm Thk. ACP as/arch.drg. & fixed with Silicon & complete with ACP skirting as per appvd.sample. <b>(IN EXTERNAL SURFACE)</b>	9	Sqm		

<b>4.4</b>	<b>Laminate on Existing Doors.</b>				
	Extra for Providing and fixing 1mm thick laminate on both sides inclusive of providing and fixing 3mm thick commercial ply on both sides of existing doors complete with SBW Beading & edging 38x19mm Complete with P/F <u>Baby latch with S.S pair of handles</u> of Godrej in toilet & pantry and 7 lever mortise lock of Godrej on all other doors as per approved Make. (vat area entry door)	7	Sqmt.		
<b>5</b>	<b>Transaction Counter</b>				
<b>5.1</b>	P/S 380mm deep Transaction counter of Cash Cabin fabricated out of 19 mm.comm.ply finished with 19mm th.Pre Polished Granite Stone of rate not less less than Rs 175 /-per sqft on exposed surfaces on top with half round edge on both sides complete in Cash Cabin at 1167 mm ht as per arch.drawing i/c cutting,making view panel opening (1'-0"x8")in granite stone inclusive of making good the surface & edge polish and P/F of 12mm th.toughened glass of size.In the opening (view panel).of 1'-0"x8" with sillicon adhesive.as per arch. drg.	1.5	Rmt		
<b>5.2</b>	<b>Work Counter with laminate</b>				
	P/F 600mm deep & 750mm high Work Counter for Server & Cash Counter fabricated out of 19mm th.comm.ply finished with 1mm th.laminate on top side front /rear and all exposed external surfaces including finishing all exposed internal surface front and exposed Leg & CPU space to be finished with 0.75mm th.Laminate complete with set of drawers 4 No's, key board drawer, shelves & shutter as per arch.drg.& P/F complete with necessary hardware,telescopic sliding channels of Hettich, Locks of SS Hettich/Godrej handles(150mm) & magnet catcher SBW Moulding 31x31 mm & SBW edging (31x6mm)& painting the exposed all other internal surfaces with 2 or 3 coats of synthetic enamel paint & melamine finish on wooden surface inclusive of P/f Stainless Steel cable Manager and making good the surface.	1.5	Rmt		
<b>5.3</b>	<b>Writing Counter</b>				
	P/F 525mm wide Writing Counter fabricated out of <u>12mm th.etched plate glass (2 nos) 150mm</u> apart with machine polished edge fixed <u>with stainless steel studs</u> , 4 No's, of appropriate size, over 19mm th.Comm.ply top finished with 1 mm th.Laminate as per appvd.sample as per arch. drg. both 150mm apart over frame work fabricated out of <u>19mm comm. Ply</u> finished with1.0mm th.laminate on all exposed external &internal surface,side & rear partitions. as per arch,drg.	1.5	Rmt		

5.4	<b>Public Counter</b>				
	<p>P/S 750mm deep Public Counter inclusive of 250mm deep Transaction Counter fixed at 900mm ht as per arch drg.fabricated out of 19mm.comm.ply <u>finished with 1 mm th.Laminate on all exposed</u> surfaces front, top,rear ,sides And exposed leg &amp; CPU space,keyboard Drawer area <u>to be finished with 0.75 mm thick laminate complete &amp; 250 mm deep transaction counter fixed at 900mm ht. from floor finish fabricated out of 19mm th.comm.ply finished with 19mm th. prepolished Granite stone</u> of Rate Rs.175 per sq.ft with half round edge and edge polish on both side, complete with P/f shelves,shutter,set of drawer 4 no's, The first drawer to have partitions fabricated out of 12mm commercial ply finished with 0.75mm thick laminate on both side &amp; SB wood edging on top for keeping currency of different denominations. All necessary hardware,telescopic sliding channel of Hettich/Godrej Locks,S.S.(8") handle,100mm Hettich hinges, polishing of SBW surface with mellamine spray finish complete with P/f S.S cable manager on table /counter top complete with making good the surface inclusive of painting of all internal surfaces of drawers,shelves,shutters with Synthetic Enamel Paint.&amp; p/f 100mm wide skirting of 1.0mm th.laminate on frontal fascia and rear side of counter as per appvd.sample.and shade i/c <u>P/F 12mm th.clear toughened glass in front</u> of public counter &amp; else,held together with <u>S.S clamps &amp; S.S Studs</u> as/appvd.sample &amp; Steem Beech beadings(18x18mm)steem beech moulding(62x31mm)complete with polish &amp; melamine spray finish as per Arch.drg.</p> <p style="text-align: right;"><b>CPU Shelf Size (1'-6" x 2'-0" x 4")</b></p>	6	Rmt		
6	<b>FALSE CEILING</b>				
	<b>Note:-Only Horizontal Base area shall be measured for false ceiling.</b>				
6.1	<b>GYPSUM</b>				
	<p>P/F of 12.5mm th.Gypsum ceiling board false ceiling in horizontal &amp; vertical surfaces &amp; moulded corners &amp; offset as per arch.drg.which include P/F roll formed G.I.Perimeter channels of sizes 27x.5mm th.having one flange of 30mm along the perimeter of the ceiling fixed to the brick wall or partition with help of rawl plug or screw i/c ending of G.I.intermediate channels of size 45x9mm th.with two flanges of 15mm th.each from the soffit @ 1200 c/c with steel/G.I.hanger of with 25mm &amp;0.5mm th.fixed soffit with G.I.cleat &amp; steel expansion fasteners of 0.5mm thickness having knurle dwedge of 51.5mm &amp; two flanges of 26mm each with tips of 10.5mm fixe to the intermediate channel with the help of converting clips in a direction perpendicular to the intermediate channel of 350mm c/c12.5mm taperededge gypsum plaster board(confirming to I.S.2095,1982)Screwed 230mm c/c screw fixing to be done mechanically with suitable attachment The tapered &amp; squared edges of the boards(as recommended by the manufacturer)finish with <u>P/A two or more coats of OBD paint over a coat of primer</u>,extra frame work for necessary hatch doors/opening upto 600mm x600mm(or as per requirement) with 19mm th.comm.board wherever required i/c necessary S.S hinges,screws finish smooth asdirected.The rate shall include the cost of extra frames for A.c.openings &amp; light fixtures &amp; speakers etc.making coves as per arch.drg.<u>inclusive of providing and fixing Strip light of Havells make(15 watts) I/C of transformer in cove fixed end to end complete with making,P/F all electrical connections &amp;wiring &amp; conduits in cove (bill of strip light to be provided with final bill.)</u></p>	80	Sqmt		

<b>6.2</b>	<b>ARMSTRONG</b>				
	P/F false ceiling with mineral fibre accoustic ceiling tiles of Armstrong with <u>Microlook Edges</u> & having noise reduction properties laid on exposed grid system with 15mm side Silhoutte type'T' section flanges colour white,main runners are spaced at1200mm centers securely fixed to the structure soffit with appvd.hangers at 1200mm max centers,filush fitting 1200mm crossed tees to be interlocked between main runners at 600mm centers to from 1200x600 modules,1200mm cross tees shall be crimped 600x600 mm module to be formed by fixing 600 mm long flush fitting cross tees centrally between the 1200cross tees,ceiling tiles of prime dune plus tiles in size 600x600x15 mm to be placed in the grid rate to i/c making necessary cut outs or openings for light fixtures etc.complete in all respects.	55	Sqmt		
<b>7</b>	<b>Blinds</b>				
<b>7.1</b>	P/F <b>Roller Blinds</b> of <b>VISTA make</b> of Rate not less than Rs.1900/- per sqm.i/cP/f 150mm wide VALENCE with Powder coated channel on top complete with bearer chain mechanism for Rolling up complete with all accessories P/F pelmet fabricated out of19mm comm. board finished with 1mm th. laminate. <b>(Purchase bill to be submitted with final bill.)</b>	2.5	Sqmt		
<b>8</b>	<b>PAINTING &amp; WALL FINISH</b>				
8.1	P/Applying two or more coats of Oil bound distemper over Walls & ceiling after preparing the surface with a coat of primer.& 6 mm th. POP.finish.	25	Sqmt		
8.2	P/F Wall Paper of basic rate Rs.55/- per sqft.with adhesive over P/A 6mm thick POP base.	10	Sqmt		
<b>9</b>	P/F18"X16" box for covering of Rolling Shutter fabricated out of 19 mm th.comm.board finished with 4mm thk. ACP as per appvd.sample and as per manufacture's specification.	3	Sqmt		
<b>10</b>	<b>BOXING</b>				
	P/F Box 6" deep fabricated out of 19mm th. Comm. Board finished with 1mm th.laminate on all exposed surfaces inclusive of P/F 100mm decorative mettalic Laminate.skirting as per arch. Drg.	5	Sqmt		
	<b>TOTAL OF PART-I</b>				



<b>(PART-II) FURNITURE WORK</b>							
<b>S. NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>	<b>UNIT</b>	<b>RATE</b>	<b>AMOUNT</b>		
<b>1</b>	<b>TABLES</b>						
<b>1.1</b>	P/F in position Table with all exposed top,side,front & rear internal surfaces to be fabricated out of 19mm th.comm.ply & <u>all exposed surfaces to be finished with 1mm th. Laminate</u> as per approved sample,and all internal surfaces,Leg space all CPU area, inside of keyboard drawers, inside of shutters & base sface of drawers to be finished with 0.75mm th.laminate & all other surfaces to be finished with 2-3coats of synthetic enamel paint,100mm wide skirting of 1mm thk. Laminate as per appvd. Shade inclusive of P/F of key board drawer, <u>4no set of drawers</u> and CPU stand fabricated out of 19mm comm.ply as /arch .drg. (38mmx38mm) SBW moulding & footrest fabricated out of with hard wood section 2.5"x2.5" with duco finish & inclusive of P/placing 12mm th.etched plate glass over table top & necessary hardware,Hettich/Godrej locks in all drawers&shutters,locking arrangement ,including 12x12mm SBW beading & i/c all necessary Hardware,Hettich/Godrej locks,locking arrangement,Hettich telescopic steel channel runner for drawers 6" long Hettich SS handles (as/appvd.sample)magnet catcher & polishing of wood grooves surface with melamine spray finish ,inclusive of p/f S.S.cable manager,inclusive of cutting & making hole complete with making good the surface.CPU platform size:(600x450x100mm)						
<b>a)</b>	<b>Table Size = 6'-0" x 2'-6" x 2'-6"</b>	1	No.				
<b>b)</b>	<b>Table Size = 5'-0" x 2'-6" x 2'-6"</b>	1	No.				
<b>2</b>	<b>SIDE CABINET</b>						
<b>2.1</b>	Providing & placing in position side cabinet having side partition, set of drawers 4 No's, shelves & shutter fabricated out of 19mm th.commercial ply with 6mm th.commercial ply wood backing & all exposed surfaces top side & front rear (wherever exposed)finished with 1.0 mm thk laminate & as /appvd. sample inside of shutter to be finished with 0.75 thk. Laminate & top to be covered <u>with 12 mm th.Glass</u> with edge polish on all sides i/c P/f 100mm wide skirting of 1.0mm th. laminate (as per appvd sample and shade) i/c P/Fnecessary hardware, SS. Piano hinge(Hettich), locking arrangement with Hettich locks, telescopic steel channel runners (Hettich )for drawer,150mm S.S.Hettich handles as/appvd samplecomplete with painting the exposed internal surfaces of drawers, shelves,shutter with synthetic enamel paint & polish on exposed wood surface with melamine spray finishi/cP/F 75mm S.S tower bolts & magnet catcher.						
<b>a)</b>	<b>(Side Cabinet size 3'-6"x1'-4"x2'-6")</b>	1	No.				
<b>b)</b>	<b>(Side Cabinet size 3'-0"x1'-4"x2'-6")</b>	5	No.				
<b>3</b>	<b>WAITING TABLE</b>						
<b>3.1</b>	P/supplying 750 mm dia waiting table fabricated out of 12 mm th.Toughened glass with bevelled edge fixed.Over 150mm dia. s.steel pipe section & necessary s.steel frame work complete with 450 mm dia, stainless base plate	1	No.				
	<b>TOTAL OF PART-II</b>						

BILL OF QUANTITY FOR ELECTRICAL WORKS FOR INDIAN BANK, BRANCH & ATM AT KESHAR NAGAR ,JAIPUR.					
S.NO.	PARTICULARS	Qty.	Unit	Rate	Amount
	<b>Note:- Purchase Bills for &amp; All wires ,cinduits and accessories to be submitted along with Final Bills.of Contractor</b>				
	<b>THE CONTRACTOR SHALL ENSURE THAT THE TOTAL LOAD FOR BRANCH IS BALANCED ON ALL THE 3PHASES, AS FAR AS IS POSSIBLE, WITH ALL THE AIR CONDITIONERS, COMPUTERS &amp; OTHER LOAD POINTS IN RUNNING CONDITION.(CONDUITS LAYOUT PLAN TO BE SUBMITTED ALONG WITH FINAL BILL)</b>				
	<b>A - Light, Fan, 16A &amp; 6A points - All switch &amp; sokets shall be modular type complete with cover plate &amp; GI/ MS box.</b>				
<b>6.1</b>	wiring for light point/fan point /wall fan point /exhaust fan/light sockets etc.with 2x 1.5sq mm.copper conductor FRLS insulated wires & 1.5 Sqmm copper earth wire in concealed/surface using 20/25mm rigid M.S. conduit 16SWG th.with all heavy duty accessories,chromium plated brass screws, M.S.draw boxes, bends, tees, saddles, mounting boxes, coverplate, ceiling rose etc wherever required etc. & chromium plated brass screws/rawl plug etc.The circuit wiring shall start from DB to point control boxes/switch box using 2x 2.5 sq.mm.copper conductor FRLS insulated 1100V Grade wires & 1.5 sq mm copper conductor FRLS insulated wires for earth,The conduit must be fixed every 80 cm on surface &conduits to be laid in ceiling with proper clamps/wall/floor& filling the chase with <u>cement mortar</u> & <u>finish</u> the same in original form/wooden partition/above False Ceiling chases be filled with cement mortar as required at site. Each circuit shall have separate earth wire.All switch socket must be of modular type with M.S. boxes & plate etc.as required.				
	Note:- each circuit shall have independent earth wire & each point shall be earthed.				
	Circuit wiring is to be included in point wiring.				
	All wiring in FRLS 1.1 Grade wries .				
<b>i</b>	one light controlled by one switch.	18	Nos.		
<b>ii</b>	two lights controlled by one switch.	17	Nos.		
<b>iii</b>	Supply/Installation of musical type cordless Remote call bell and push etc.	1	Nos.		
<b>iv</b>	one ceiling fan controlled by one switch & one electronic type 5step fan Regulator(cost of fan regulator is included with the supply of ceiling fans)(Note:Regulator is not providing in point rate because the the regulator cost is Rs.500/- & switch cost is Rs.100/-	3	Nos.		
<b>v</b>	one wall fan controlled by one 5amp modular switch with switch at switch board but 5Amp.3 pin socket has to provided near the wall fan for connections	10	Nos.		
<b>vi</b>	one exhaust fan controlled by one switch including ceiling rose to be provided near the exhaust fan for connections.	3	Nos.		

<b>vii</b>	One 6amp ,5 pin socket controlled by one 6amp modular one way switch at switch board level.				
<b>a</b>	Dependent	6	Nos.		
<b>b</b>	Independent	6	Nos.		
<b>6.2</b>	<b>POWER POINTS</b>				
	Do-as above but using 4sqmm copper conductor wires for the first 16A,6 pin modular socket controlled by 16A switch & 2nd point looped with 2.5sq mm copper conductor wires FRLS insulated 1100V grade ( max 2 points on one MCB), Earth wire shall be 2.5 sq mm copper conductor FRLS insulated wire.				
<b>i</b>	<u>Twin power points</u> - with 1st POWER Point with 4.0 Sq.mm Copper conductor wire + 1x2.5sq.mm earthwire.The 2nd point shall be looped with 2 x 2.5sq mm copper conductor wires FR LSH 1100V (Max 2 points on one MCB), Earth wire shall be 2.5 sq mm copper conductor FRLSH insulated wire. The rates shall include cost of Circuit wiring & cost of 2sets of 16A 6pin modular socket & 16A switch	6	Nos.		
<b>ii</b>	Single POWER Point with 2.5Sqmm Cu conductor wire & 2.5 sq.mm Cu conductor earthwire. The rates shall include cost of Ckt wiring & cost of 1set of 16A 6pin modular socket & 16A switch	5	Nos.		
<b>iii</b>	Both twin Power Point with 2.5 SQMM Cu conductor wire with 2no's 16Amp swith & 2no's socket,one 6Amp Indicator. The 2nd point shall be looped with 2.5sq mm copper conductor wires FR LSH 1100V (Max 2 points on one MCB), Earth wire shall be 2.5 sq mm copper conductor FRLSH insulated wire. The rates shall include cost of Ckt wiring & cost of 2sets of 16A 6pin modular socket & 16A switch	2	Nos.		
<b>6.3</b>	<b>A.C. POINT</b>				
<b>i</b>	Supply and installation of metal clad Reyrolle 20A, 3pin modular type A.C socket with matching plug top and 25/32A SP MCB C Series in factory fabricated AC MS box c/w circuit wiring with 2x4sqmm FRLSH Copper wire & 1x2.5sqmm FRLSH for earthing.	6	Nos.		
<b>ii</b>	S/F of 63A 2P MCB in 2way metallic box Siemens 8GB32100RC02 near ODU for 2TR cassette units including making proper connections to the entire satisfaction of the bank for 2nos. 2TR cassette AC's	2	Nos.		
<b>iii</b>	S/ laying of XLPE insulated armoured Cu Conductor cable including cost of lugs, cable glands etc. The cable should be laid on surface with proper clamps @750mm or laid & concealed in wall/ floor/ PVC Conduit/ false ceiling complete in all respect. The work also includes cutting chases for conduits in the wall/ floor (Without damaging the building) along with clamping the cable.				
	3c x 4sq.mm for single phase 2TR Cassette Out door units	15	Metre		

6.4	DISTRIBUTION MAINS				
i	S/F of 3 nos.100Amp 415V Kit kats Havells IHKRN4100 c/w 5 hole heavy duty terminals with shroud & cover including making of connection from electronic meter c/w wooden board etc.	1	Set		
ii	Supply, Installation, Testing & commissioning of Main L T panel fabricated from CRCA sheet 1.8mm dust proof, vermin proof as under - All switchgears to be of Siemens/ ABB/ L& T. Incomer - 100A 3P MCCB 25Ka with adjustable thermal & Magnetic trip unit	1	Set		
	OUTGOINGS -				
	63A 3P MCB 10Ka for AC panel				
	63Amp 3P MCB - 2no. - 10kA for 2nos. VTPN Db's				
	63A 3P MCB - 1no. Common for UPS 1 & 2 for 63A SFU				
	63Amp 3P MCB - 1nos. Spare -10kA				
	32Amp -2P MCB 3nos. - for Sign Board, Fire alarm & spare				
	Copper Bus Bar - 100Amp c/w Ammeter & its selector switch, voltmeter & its selector switch, Indication lamps etc.				
	Cable entry from top & bottom - removable gland plates (bottom at 2 points) c/w powder coated Grey paint (two coats) with name labels for all incoming & outgoing feeders. The panel shall be complete in all respects including all accessories such as earthing bus, Air ventilators, lifting hooks etc.				
iii	Supply, Installation, Testing & commissioning of AC panel fabricated from CRCA sheet 1.8mm dust proof, vermin proof as under - All switchgears to be of Siemens/ ABB/ L& T. Incomer - 63A 3P MCCB 25kA with adjustable thermal & Magnetic trip unit	1	Set		
	OUTGOINGS -				
	63A 2P MCB - 2no. - 10kA for 2nos. For 2TR Cassette				
	32Amp -2P MCB 3nos. - 10kA -2 for 1.5 TR split AC & 1spare 2nos. For 1.0 TR Split AC for Sign Board, Fire alarm & spare				
	25Amp -2P MCB 3nos. - 10kA - 2nos. For 1.0TR Split AC & 1 spare				
	Bus Bar - 63A c/w Ammeter & its selector switch, voltmeter & its selector switch, Indication lamps etc.				
	Cable entry from top & bottom - removable gland plates (bottom at 2 points) c/w powder coated Grey paint (two coats) with name labels for all incoming & outgoing feeders. The panel shall be complete in all respects including all accessories such as earthing bus, Air ventilators, lifting hooks etc.				
iv	S/ laying of XLPE insulated armoured Cu Conductor cable including cost of lugs, cable glands etc. The cable should be laid on surface with proper clamps @750mm or laid & concealed in wall/ floor/ PVC Conduit/ false ceiling complete in all respect. The work also includes cutting chases for conduits in the wall/ floor (Without damaging the building) along with clamping the cable.				

	4c x 16sq.mm from existing main panel to the fuse Kit Kats	25	m		
	4c x 10sq.mm for AC panel	20	m		
	4cx6sq.mm for AC, L&F and PP VTPN Db	25	m		
	4cx6sq.mm for 63A SFU for UPS 1 & UPS 2	20	m		
<b>v</b>	Supply & fixing of Flush mounted VTPN Db IP - 42 double door complete in all respects. Siemens/ L&T/ MDS/ Schnider (The load shall be distributed equally on all phases)				
<b>a</b>	Entrance side AC, PP and L &F 6way VTPN Db's IP 42 - Siemens 8GB0406 VRC (Location LHS wall near entrance)	1	Each		
	Incoming - 415V 63A 3P MCB -10kA				
	<b>OUTGOINGS</b>				
	3Nos. 20A 1P MCB 10kA for twin PP- 2nd power point to be looped from 1st PP- one for 2PP in AGM & 2 for 4 officers IDO opposite Server room				
	5Nos. 16A 1P MCB 10kA for single PP - 2 separate ckts for Server, 1 cash, 1 for TV & 1 for D/w				
	4Nos. 10A 1P MCB 10kA for L & F				
	4Nos. 6A 1P MCB 10kA for L & F				
	2nos.Blanking plate				
	All connection thru lugs				
<b>b</b>	AC, PP and L &F - 4way VTPN Db's IP 42 - Siemens 8GB0404 VRC (Location outside toilet area)	1	Each		
	Incoming - 415V 63A 3P MCB -10kA				
	<b>OUTGOINGS</b>				
	3No. 20A 1P MCB 10kA for twin PP- 2nd power point to be looped from 1st PP-				
	2Nos. 16A 1P MCB 10kA for single separate ckts				
	3Nos. 10A 1P MCB 10kA for L & F				
	2Nos. 6A 1P MCB 10kA for L & F				
	2nos. - Blanking plate				
	All connection thru lugs				
<b>vi</b>	Glow sign Board - Circuit wiring with 2x2.5sq.mm + 1x 1.5sq.mm stranded Cu. conductor (Finolex/Anchor/Skytone) to be laid in 20mm MS conduit heavy duty laid & concealed in wall/ floor/ panelling/ partitions or above false ceiling as per requirement. The rates should include the cost of all materials, labour, T&P, taxes & levies, scaffolding, shifting of furniture, carting away the debris and cleaning the floor etc.The job shall be complete & to the entire satisfaction of the Bank.	15	m		

<b>6.5</b>	<b>EARTHING</b>				
	The items listed below shall be undertaken directly by M/s Sanushaa Technolgies(contact person Shri S.Tiwari 9871668400,0120-6450701)& Tanviya Technology(contact person Sh.Amar Singh Badal 9958467363)The contractor shall provide the rates of getting the same executed by the agency.The representative of the agency shall measure and submit the test report of the earth directly to the branch & one copy to the Elect.Engr.The agency is also required to test and provide the test report of the earthing measurement every six months to the branch and Elect.Engr. For monitoring upto a period of three years,First report from agency to be submitted along with final bill.				
<b>i</b>	Panel/ Power earthing - Supply and installation of pipe-in-pipe technology Ashlok Earthing system.Model T-19 with outer diameter of 50mm length 2000 mm embedded in the soil with masonry inspection pit along with cover etc.complete in all respect.Earth pit installation test certificate to be submitted after measurement of earthresistance as per the provision in IS3043. (Panel & ATM Earthing)	2	Nos.		
<b>ii</b>	S/fixing 25x3mm copper strip insulated by heat pressurized heavy gauge PVC sleeve duly jointed by full lap brazing and drawn underground in 40 mm class B GI pipe from the inspection pit to the inside of the branch premises	25	Meter		
<b>iii</b>	S/fixing 25x3mm copper strip,insulated by heat pessurized heavy gauge PVC sleeve,duly jointed by full lap brazing and fixed on wall with copper saddles & brass	25	Meter		
<b>6.6</b>	<b>TELEPHONE CABLING</b>				
<b>i</b>	Supply & fixing on wall/ furniture/ partition recessed type modular telephone jack single without shutter outlet RJ-11 c/w mounting box & front plate. The job includes chase cutting, mending good etc. as required includinhg Supply & laying of 2 pair unarmoured 0.61mm dia. PVC insulated twisted pairs bunched together telephone cables through rigid 20mm OD PVC medium duty conduit pipe as directed by the Bank/ Architect from telephone junction box to telephone socket outlet including interconnection mending good etc. as required complete in all respects.	9	Each		
<b>ii</b>	Supply & fixing of MDS box	1	Each		
<b>iii</b>	Supply & fixing of 10 pair Crone boxes	1	Each		
<b>6.7</b>	<b>UPS POWER STATIONS WIRING, SPECIFICATIONS AND BILL OF QUANTITY</b>				
	<b>Alternate Computer points shall be connected to UPS1 &amp; UPS 2.</b>				
	<b>For Manager Room &amp; server room- one point shall be from UPS 1 &amp; other from UPS 2. It shall have 4nos. 6A switches in computer power station.</b>				
	<b>For note counting - computer power station shall have 4nos. 6A switches</b>				
	<b>For server switch - computer power station shall have 3nos. Power points.</b>				

<b>6.7.1 FOR UPS -1</b>					
<b>i</b>	Supply & Fixing of 32A 4P MCB in a 4way SPN Db IP-20 Metallic directly on wall for UPS -1 complete in all respects	1	Each		
<b>ii</b>	Supply & Fixing of 63A 3phase rotary switch heavy duty including all connections thru lugs complete in all respects to the entire satisfaction of the bank.	1	Each		
<b>iii</b>	Supply & Fixing of 32A 2P MCB in 2way SPN Db IP 20 metallic directly on wall for UPS Incoming suuply	1	Each		
<b>iv</b>	Supply & running the following size of 660V grade, Finolex brand PVC insulated, multi stranded Cu conductor in suitable size of MS conduit on wall/ wooden partitions under the floor as per site requirements in the case of running the conduit under the flooring or concealed in the wall. The flooring/ wall shall be neatly finished with cement mortar.				
<b>v</b>	3 runs of 2.5sq.mm UPS Db's to power stations of 3 plug each (As explained in Item -1) to be connected to each circuit	25	m		
<b>vi</b>	2 runs of 6.0sq.mm with one run of 2.5sq.mm As explained in Item - 6 from change over switch to Db for individual Power station through phase selector & UPS	15	m		
<b>vii</b>	2 runs of 4.0sq.mm with one run of 2.5sq.mm for connections of UPS Incomer & UPS Outgoing in PVC flexible conduit	15	m		
<b>viii</b>	2 runs of 4.0sq.mm with one run of 2.5sq.mm for UPS controlled power point strip for server switch in MS conduit	25	m		
<b>ix</b>	Supply & fixing of computer power stations				
<b>a</b>	Wiring with 2x2.5 sqmm+1x1.5 SqmmPVC Insulated1100v Grade multi stranded copper conductor wires in 16SWG th.rigid M.S Conduit from UPS DB to Computer Point.Each point to have 3no's 6amp 5PinModular Type Sockets,One 6amp luminous indicator has to be provided over the table/counter top with control switch & the sockets placed below the table with 3no's 6Amp. in wooden Partition with all accessories,inner/outer Plates,metal box etc & to be fixed on wooden partitions/by grouting on wall etc as per site requirement	5	Each		
<b>b</b>	Manager Cabin & Server Room and Note Counting room - 6A 5Pin 4nos. sockets surround controlled by 1no. 16A switch & 2nos. apertures with blank plugs - Schnider Clipsal office wonder for work station (H2015/ 6E4X - WE)/ MK DW109WHI-A or equivalent as approved by Architect complete in all respects. The box shal be fixed on wall or Partition (wooden) concealed or open as required at site.	2	Each		

<b>c</b>	Server switch - 13A multi pin 3nos. sockets surround controlled by 1no. 16A switch & 3nos. apertures with blank plugs - Schnider Clipsal office wonder for work station (AAKH2015/ 13E4X - WE) or equivalent as approved by Architect complete in all respects. The box shall be fixed on wall or Partition (wooden) concealed or open as required at site.	1	Each		
<b>d</b>	Supply & Fixing of 12way SPN Db double door IP - 43 with 9nos.10A 1P +1no.16A 1P MCB's (10kA rupturing capacity) controlled thru incomer 40A 2P MCB fixed on the wall or concealed with necessary adopter box on out going side to facilitate for terminating the 6nos. conduits with necessary holes. The distribution board & MCB's should be of the same make - "Make - STANDARD"/ Siemens	1	Each		
<b>6.7.2</b>	FOR UPS -2				
<b>i</b>	Supply & Fixing of 32A 4P MCB in a 4way SPN Db IP-20 Metallic directly on wall for UPS -2 complete in all respects	1	Each		
<b>ii</b>	Supply & Fixing of 32A 2P MCB in 2way SPN Db IP 20 metallic directly on wall for UPS Incoming supply	1	Each		
<b>iii</b>	Supply & running the following size of 660V grade, Finolex brand PVC insulated, multi stranded Cu conductor in suitable size of MS conduit on wall/ wooden partitions under the floor as per site requirements in the case of running the conduit under the flooring or concealed in the wall. The flooring/ wall shall be neatly finished with cement mortar.				
<b>iv</b>	3 runs of 2.5sq.mm UPS Db's to power stations of 3 plug each (As explained in Item -1) to be connected to each circuit	25	m		
<b>v</b>	2 runs of 6.0sq.mm with one run of 2.5sq.mm As explained in Item - 6 from change over switch to Db for individual Power station through phase selector & UPS	15	m		
<b>vi</b>	2 runs of 4.0sq.mm with one run of 2.5sq.mm for connections of UPS Incomer & UPS Outgoing in flexible/ MS conduit	15	m		
<b>vii</b>	2 runs of 4.0sq.mm with one run of 2.5sq.mm for UPS controlled power point strip for server switch in MS conduit	25	m		



<b>6.8</b>	<b>COMMON FOR BOTH UPS 1 &amp; 2</b>				
	<b>Earthing</b> - The items listed below shall be undertaken directly by M/s Sanushaa Technolgies(contact person Shri S.Tiwari 9871668400,0120-6450701)& Tanviya Technology(contact person Sh.Amar Singh Badal 9958467363)The contractor shall provide the rates of getting the same executed by the agency.The representative of the agency shall measure and submit the test report of the earth directly to the branch & one copy to the Elect.Engr.The agency is also required to test and provide the test report of the earthing measurement every six months to the branch and Elect.Engr. For monitoring upto a period of three years.				
i	UPS earthing - Supply and installation of pipe-in-pipe technology Ashlok Earthing system.Model T-39 with outer diameter of 80mm length 2000 mm embedded in the soil with masonry inspection pit alongwith cover etc.complete in all respect.Earth pit installation testcertificate to be submitted sfter measurement of earth resistance as per the provision in IS 3043.(UPS connection)	1	Nos.		
ii	S/fixing 25x3mm copper strip insulated by heat pressurized heavy gauge PVC sleeve duly jointed by full lap brazing and drawn underground in 40 mm class B GI pipe from the inspection pit to the inside of the branch premises	20	Meter		
iii	S/fixing 25x3mm copper strip,insulated by heat pessurized heavy gauge PVC sleeve,duly jointed by full lap brazing and fixed on wall with copper saddles & brass	20	Meter		
iv	Supply & Fixing of 63A TPN SFU (Siemens 3KL8151-3TA10 or equivalent) with HRC fuses (Havells IHHTSS0063) on suitable angle iron frame/ wall	1	Nos.		
v	Supply & Fixing of 40 A 2P Hagers SFT240N manual single phase changeover switch (or any other equivalent brand)	1	Nos.		
<b>6.9</b>	<b>DATA/ MOLEX/ AMP</b>				
	<b>Each data points for BM &amp; server shall have 2nos. Information outlets</b>				
	<b>Each information outlet shall be fed from separate Cat 6e cable.</b>				
	<b>Distance between data pipe/ PVC channel &amp; power pipe shall be 300mm &amp; above.</b>				
i	Information outlet per number with face plate and base box- Supply & Fixing of XL RJ 45 toolless information outlet Grey colour cat 6e Giga speed Systimax/ D link make including interconnection with single connectors as required complete in all respects.	9	Nos.		
ii	Patchmax Panel # 24 Ports - Supply & fixing of 24 Port Cat 6e Patch Panel/ Jack panel D - Link/ systimex fully loaded in the rack to be provided by purchaser complete in all respect to the entire satisfaction of the Bank.	1	m		

iii	Patch Chord - 1metre - Supply & fixing of 1 metre length Grey colour Patch chord Giga speed Systimax/ D link make for connections to nodes	9	Nos.		
iv	Patch Chord - 2 metres - Supply & fixing of 2metre length Grey colour Patch chord Giga speed Systimax/ D link make for making connections between patch panel & switch thru cable manager	9	Nos.		
v	UTP cable (ECAT # 6) - Supply & laying of CAT - 6e cables Giga speed D -Link/ Systimex make through pre-laid rigid PVC conduit/channel as directed by the consultant from Server to Switch, Switch to computer data socket including interconnection with connectors as required complete in all respects. The data cabling pipe/channel should be laid at a minimum distance of 3ft from pipes laid down for power distribution. (Two separate cables to be laid for each information outlet)	250	m		
vi	Switch 24 Port - D Link/ systimex	1	Nos.		
vii	PVC Channel Flat 1.5mm and above (Make - Modi) 1" size	100	m		
viii	9U, 19", 450mmD x300mmW closed wall mount MS 18/20swg powder coated rack with glass door opening in the front with power panel, cable manager & lock & key (Universal make)	1	Nos.		
<b>3.1</b>	<b>SUPPLY &amp; FIXING ITEMS</b>				
i	S/F of Energy efficient recessed mounted LED luminaire - GreenSquare, profiled recess mounted luminaire, energy efficient with longer life, resulting in lower operational cost Panasonic/ Anchor ABL13B367, Philips - RC370B LED30S 6500 G4 L60 W60 PSU OD 24W-3000LUMEN / or equivalent Wipro/ Crompton Greaves or any other make approved by Bank/ architect.	15	Each		
ii	S/F of recessed LED downlighter - Recessed mounted LED down lights Philips DN172B LED10S-PSU CDL-12.5W-1000LUMEN complete in all respects or equivalent Wipro/ Crompton Greaves or any other make approved by Bank/ architect.	12	Each		
iv	DNO91B LED6S-6500 PSU WH (PHILIPS)	25	Each		
v	S/F of wall mounted fan 400mm sweep - Havells Palatina model or equivalent Bajaj / Crompton/ Alstom/ Usha	10	Each		
vi	S/F of ceiling fan 1200mm sweep double ball bearing type - Havells Velocity/ Velocity HS or Equivalent Bajaj / Crompton/ Alstom/ Usha	3	Each		
	S/F of electronic modular regulator Anchor 22546 - Fan step regulator Tiny EME 100w	3	Each		

<b>vii</b>	Supply & Fixing of fresh air fan 12" - Havells venti Air DSP metallic range model or equivalent Bajaj / Crompton/ Alstom/ Usha	3	Each		
<b>viii</b>	P/F 63 amp 3 phase manual change over with copper bus bars,Havells/standard in UPS ROOM	1	Each		
<b>ix</b>	P/F MCCB 100 amp Havells/standard	1	Each		
<b>x</b>	P/F copper wire 16mm single core in concealed/surface using 20/25mm rigid M.S. conduit 16SWG th.with all heavy duty accessories,	15	mtr		
<b>xi</b>	P/F 35 sqmm 4 core 1100v aluminium armoured cable	10	mtr		
<b>TOTAL OF PART-III</b>					
<b>AIR CONDITIONING WORK</b>					
<b>1</b>	<b>REFRIGERANT PIPING</b>				
<b>i</b>	Refrigerant piping upto 5 RM per circuit & first charge of Refrigerant and oil (TO BE INCLUDED )				
	Extra Referigerant piping beyond 5RM per circuit(with insulation) in split a.c with 12.7 mm O.D. (Min. Wall Thickness - 0.80 mm) 13mm thick insulation	60	Rmt		
<b>ii</b>	Extra Referigerant 6/8 piping beyond 5RM per circuit (with insulation) in casette a.c	30	Rmt		
<b>2</b>	Supply and installation of additional drain pipe with proper slope by heavy gauge 25mm dia HDPE pipe.the drain pipe has to be led out to the toilets or drain outlet of the building outside the building with proper slope it must be ensured that the pipe is embedded in the wall and the wall properly finished.(with insulation)	80	Rmt		
<b>TOTAL OF PART-IV</b>					