MINISTRY OF HEALTH & FAMILY WELFARE, GOVERNMENT OF INDIA (Department of Health Research)

Tender

For

Supply, installation, testing & commissioning of Internal furnishing & related minor Civil, Plumbing, Electrical, LAN,WI-FI works etc for DHR at 2nd Floor of Red Cross Building , New Delhi

Volume-IV

Bill of Quantities

APRIL 2013



HSCC (INDIA) LTD. (CONSULTANTS & ENGINEERS FOR MEGA HOSPITALS & LABORATORIES) E-6(A), sector-1, NOIDA(U.P) 201301 (India)

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PQ tender No. HSCC/DHR/Fur/2013

Proje			g of Internal furnishing & relate d Floor of Red Cross Building ,	
	SUMMARY OF	F COST		
S. No.	Description	Rate In Rs. In figure	Rate In Rs. In Words	Amount in Rs.
1	Furniture Cost			
2	Civil works			
3	Electrical Works			
4	Lan & Wi-Fi			
	TOTAL			

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
1	Full HT. Partition	Sqm.	100				
	Providing & Fixing minimum 65mm thick & 3000 Ht. tile Based Partition having inner framework in CRC steel covered with tiles on both sides are covered with aluminium powder coated trims on top and end sides. Partition has Aluminium raceway at bottom and at middle level. Partitions are provided with option of various kinds of tiles like prelaminated board tiles, glass tiles, fabric tiles & white marker tiles. All metallic parts undergo a 7 stage antirust treatment and are epoxy powder coated and baked at 200° temp. to a powder coating thickness of 50-60 microns. The modular partitions are independent and not grouted in the floors. The modular partitions are an assembly of the following parts:-						
	Frames - Frame forms the basic support structure for all other components. The main vertical member of the frame bearing all the load is made of 1.2mm CRCA steel and the horizontal members are made of 1.0mm CRCA steel. The frames also have prefabricated slots for fixing brackets to support worktops, sharer tops, gable ends, overhead hampers etc. The bottom tiles are mounted over a skirting of 135mm height. The skirting is designed so that switch cutout can be provided at the skirting level and are snap fitted on both sides with skirting raceway plates made of 1.0mm thick Aluminium sheet. The bottom raceway panels are epoxy powder coated and baked at 2000 temp. to a powder coating thickness of 50-60 micron.						
	Levellers - Each frame is provided with two Nos. 12mm leveling bolts which allows 10-25mm adjustment for floor unevenness. Post - The frames are inter connected at the junctions by aluminium connectors/posts. The posts are made of aluminium extrusions of 1.2mm thickness duly powder coated. Top Trim Joinery - Full Height Partitions are provided with top adjustors which allows 10-50 mm adjustment for ceiling uneveness. L shaped top patti is provided to cover the adjustors and fix partition with the ceiling / Beam.						
	<u>GROOVE COVERS</u> - The vertical gaps between the tiles shall be properly and uniformely maintained and shall be vertically covered by fixing specially extruded aluminium section to maintain uniform groove on both the sides of the partition.						

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
	WIRE MANAGMENT - Partitions system has concealed wire management capabilities to meet requirement and are engineered for responsive and safe operations of power, telecommuncations and data (LAN). It has separate components for electrical, data and telephone cables having adequate capability of both the vertical and horizontal wire movements. Slots/cutouts are provided on Raceways to fix all electrical and data points.						

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
	TILES - The Partition tiles are provided in Pre Laminated Particle Board/Fabric on Soft board/White Marker Laminate / Magnetic Tile /Glass finishes. The PRELAMINATED PARTICLE BOARD TILE are provided in 12mm Prelaminated Particle Board having decorative laminate on top and white balancing on unexposed face, having all exposed edges sealed with PVC edge banding tape, pressed at 200° C with hot melt glue on special edge banding machine. The tiles are supported with Tile Hook made of MS steel sheet duly galaunised to clip on to the partition frame.						
	The FABRIC TILES are made of 9mm softboard inside and backed by 3mm MDF board & covered with fabric pasted on them by PVA glue. The tiles are supported with Tile Hook made of MS steel sheet duly galaunised to clip on to the partition frame. The MARKER TILES are made up of 9mm particle board pasted with 1mm white marker laminate, on the exposed face having all exposed edges sealed with PVC edge banding tape, pressed at 200° C with hot melt glue on special edge banding machine. The tiles are supported with Tile Hook made of MS steel sheet duly galaunised to clip on to the partition frame.						
	The MAGNETIC TILES are made up of fabric finish tile on CRCA sheet duly powder coated. The overall thickness of the tile is 12mm and is provided with magnetic coins is required. The tiles are supported with Tile Hook made of MS steel sheet duly galuanised to clip on to the partition frame. The DOUBLE SKINNED GLASS TILE - is made up of 5mm thick clear / Glass of Modi / Asahi make and is fixed on both side of partition. The glass tile is provided with aluminium frame work and is fixed with aluminium section using transparent rubber beading. These glass tiles are completely inter changeable with other regular tile.						
	Door Unit						
	Providing and fixing miniumum 35mm thick factory made Flush Door shutters in the full height partition made of machine cut seasoned hard wood battens held within a frame made of a strip of 29mm wide hard wood edge miter jointed and then faced with 3mm commercial ply on both sides pasted with suitable resin glue hot pressed in machine to produce an accurate and warp free plank. Further faced with 1mm laminate of approved shade to make the total thickness of flush shutter of 37mm and providing and fixing first class teak wood lipping along the edges of the shutters finished with melamine polish. The door unit is provided with the following fixtures in each door shutters.						

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
	 ISI marked anodized aluminium butt hinges 4 Nos. chromium plated brass 100mm nortice latch and lock with 6 levers and a pair off lever handles with necessary screws etc. complete - 1 No Hydraulic door clousure with double speed adjustment with necessary accessories and screws etc 1 No. 						
	4. ISI marked anodized aluminium hanging floor door stopper - 1 No.						
2	Workstation consisting of the following:						
i	65 MM THK. PARTITION (1230 Ht.)	Sqm.	75				
	Providing & Fixing tile Based Partition System of overall thickness 65mm having inner framework of CRC steel covered with tiles on both sides and covered with aluminium powder coated trims on top and end sides. Partition has steel raceway at bottom and at middle level. Partition system provides option of various kinds of tiles like prelaminated board tiles, fabric tiles & white marker tiles. All metallic parts undergo a 7 stage antirust treatment and are powder coated in matt finish to a thickness of 40-60 microns. The modular partitions are an assembly of the following parts:-						
	FRAME - Frame forms the basic support structure for all other components. The main vertical member of the frame bearing all the load is made of 1.2mm CRCA steel and the horizontal members are made of 1.0mm CRCA steel. The frames also has prefabricated slots for fixing brackets to support worktops, gable ends etc. The bottom module are mounted over a skirting of 135mm height. The skirting is designed so that switch cutout can be provided at the skirting level and are snap fitted on both sides with skirting plates made of 0.8mm thick CRCA steel.						
	LEVELLERS - Each frame is provided with two Nos. 12mm leveling bolts which allow 10-25mm adjustment for floor unevenness. POST - The frames are connected at the junctions by aluminium connectors/posts. The posts are made of aluminium extrusions of 1.3mm thickness. TRIMS -The exposed vertical and horizontal faces of the frames are snap fitted with curve trims. The trims are made of aluminum extrusions of 1.5mm thickness and 65mm width and are covered with ABS caps.						
	GROOVE COVERS - The vertical gaps between the tiles shall be properly and uniformely maintained and shall be vertically covered by fixing specially extruded aluminium section to maintain uniform groove on both the sides of the partition.						

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
	WIRE MANAGEMENT - Partitions system has concealed wire management capabilities to meet requirement and are engineered for responsive and safe operations of power, telecommuncations and data (LAN) and has seperate components for electrical, data and telephone cables having adequate capability of both the vertical and horizontal wire movements. Slots/cutouts are provided on Raceways to fix all electrical and data points.						
	TILES - The partition tiles shall be provided in Pre Laminated Particle Board/Fabric on Soft board/White Marker Laminate Finishes. The <u>Prelaminated Particle Board</u> tile are provided in 12mm Prelaminated Particle Board with decorative laminate on top and white balancing on unexposed face, having all exposed edges sealed with PVC edge banding tape, pressed at $200 \circ C$ with holt melt glue on special edge banding machine. The tiles are supported with Tile Hook made of MS steel sheet duly galuanised to clip on to the partition frame.						
	The Fabric Tiles are made of 9mm softboard inside and backed by 3mm MDF board & covered with fabric pasted on them by PVA glue. The tiles are supported with Tiles Hook made of MS steel sheet duly powder coated to clip on to the partition frame. The Marker Tiles are made up of 9mm particle board pasted with 1mm white marker laminate, on the the exposed face having all exposed edges sealed with PVC edge banding tape, pressed at 1800 C with hot melt glue on special edge banding machine. The tiles are supported with Tile Hook made of MS steel sheet duly galaunised to clip on to the partition frame.						
ii	Worksurface						
	Providing & Fixing postformed worksurface made of 25mm thick plain Particle Board with 0.7mm decorative laminate on top & 0.6mm thick balancing laminate on unexposed face with front edge profiled in desired shape. All exposed edges are sealed with 2mm thick PVC edge banding tape pressed at 2000 C with hot melt glue on special machines. The worktop is supported with cantiliver brackets made of MS steel duly powder coated.Worksurface is also provided with ABS wire manager of 50mm dia.						
b	1200x600	Nos.	21				
iii	CPU Trolly	Nos.	21				
	Providing & Fixing CPU trolley of 240mm height with adjustable width from 250 to 320mm width made of 1.6mm thick CRCA steel sheet duly powder coated with 2 Nos. lockable castors & 2 Nos. non lockable castors.						

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
iv	Keyboard	Nos.	21				
	Providing & fixing keyboard tray of size 500x220x75mm made up of 1.2mm thick CRCA steel sheet duly powder coated. The Keyboard tray runs on ball slides for smooth movement.						
v	Drawer Unit	Nos.	21				
	Providing & Fixing drawer pedestal unit with 2 drawer & 1 filling of an over all sizes 380x575x725. The drawer unit is made of 18mm thick prelaminated particle board with all exposed edges sealed with 2mm thick PVC edge banding tape and unexposed edges sealed with 0.6mm PVC banding tape pressed at 2000 C with hot melt glue on special machines. The inner drawer is made of 0.6mm CRCA steel duly powder coated & has proper locking arrangement with drawer sliding on nylon rollers channels.						
3	HFM Table (3000x900/1200x750)	Nos.	1				
	Providing & Fixing CEO Series Table of an overall size 3000x900/1200x750 with top made of 36mm thick MDF board pressed with 0.4mm thick membrane foil clad pressed with PU glue. The foil is precoated with a layer of polyurethane for better scratch resistance. The table has 2 former module on both sides, supported on steel vertical duly powder coated. The main table understructure has verticals and modesty made of 18mm thick prelaminated particle board with decorative laminate on both side. The modesty and verticals are supported by legs in curved shape. The modesty is provided with two metalic strips duly powder coated as per the photograph.						
i	HFM Side Unit (1200x500x750)	Nos.	1				

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
	Providing & fixing CEO Series side unit of an overall size 1200x500x750 with top made of 36mm thick board pressed with 0.4mm thick membrane foil clad pressed with PU glue. The foil is be precoated with a layer of polyurethane for better scratch resistance. Side unit understructure body is made of 18mm thick prelaminated particle board with openable shutter on one side and 2 drawers + 1 filing on other side in 18mm membrane finish facia with proper locking arrangement. All the exposed edges sealed with 2mm PVC edge banding tape and all unexposed edges sealed with 0.6mm edge banding tape pressed at 2000 C with hot melt glue on special machines.						
ii	HFM Back Unit (3000x500x750)	Nos.	1				
	Providing & Fixing CEO Series back unit of an overall size 3000x500x750 with top made of 36mm thick board pressed with 0.4mm thick membrane foil and pressed with PU glue. The foil is precoated with a layer of polyurethane for better scratch resistance. Storage unit has body made of 18mm thick prelaminated particle with openable shutter storage on both side and 2 Drawer and 1 filing drawer unit in center with facia in membrane finish. All the exposed edges sealed with 2mm PVC edge banding tape and all unexposed edges sealed with 0.6mm edge banding tape pressed at 2000 C with hot melt glue on special machines.						
4	HFM Secretary Table with Side Unit & Back Unit						
i	Table with Drawer, Keyboard & CPU	Nos.	1				

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
	Providing & Fixing Champhered Table of an overall size 2900x1050x750 with top made of 36mm thick board pressed with 0.4mm thick membrane foil clad pressed with PU glue. The foil is precoated with a layer of polyurethane for better scratch resistance. The main table has verticals made of 25mm thick postformed particle board and modesty made of 18mm thick prelaminated particle board having decorative laminate on both sides. All the exposed edges are sealed with 2mm PVC edge banding tape and all unexposed edges are sealed with 0.6mm edge banding tape pressed at 2000 C with hot melt glue on special machines. The table also has a provision of drawer made up of 18mm thick pre laminated particle board body with facia made of 18mm thick membrane foiled with proper locking arrangement. Keyboard & CPU are made up of 18mm Pre Laminated Particle Board.						
ii	HFM Secretary Table Side Unit	Nos.	1				
	Providing and fixing Champhered Side Table of an overall size 1200x500x750 with top made of 36mm thick board pressed with 0.4mm thick membrane foil clad pressed with PU glue. The foil is precoated with a layer of polyurethane for better scratch resistance. The understructure body is made of 18mm thick Pre Laminated Particle Board. The facia is made of 18mm thick membrane foiled with profiled edges with two drawers and one filing on one side and one openable shutter with shelf on other side with proper locking arrangement. All the exposed edges are sealed with 0.6mm edge banding tape pressed at 2000 C with hot melt glue on special machines.						
iii	HFM Secretary Table Back Unit	Nos.	11				
	Providing and fixing Champhered back storage unit of an overall size 2900x500x750 with top made of 36mm thick MDF board pressed with 0.4mm thick membrane foil clad pressed with PU glue. The foil is precoated with a layer of polyurethane for better scratch resistance. The body is made of 18mm thick Pre Lamianted Particle Board & facia is made of 18mm thick membrane foiled profiled with proper locking arrangement. The storage unit of size 2400x500x750 has two storages with openable shutters on both sides and lateral filing unit in center. All the exposed edges are sealed with 2mm PVC edge banding tape and all unexposed edges are sealed with 0.6mm edge banding tape pressed at 2000 C with hot melt glue on special machines.						

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
10	Table (Directors/Deputy Director)	Nos.	7				
	Providing & Fixing Director Series table of an overall size 2300x1100x750 with top made of 36mm thick postformed particle board and former module made of 36mm thick MDF board pressed with 0.4mm thick membrane foil clad pressed with PU glue. The foil is precoated with a layer of polyurethane for better scratch resistance. The table understructure has vertical leg made of 25mm thick postformed particle board on one side and supported by three drawer unit made of 18mm thick Pre Laminated Particle Board with 50(D) studs made of steel duly powder coated. The modesty is made of 18mm thick prelaminated particle board having decorative laminate on both sides. All the exposed edges sealed with 2mm PVC edge banding tape and all unexposed edges sealed with 0.6mm edge banding tape pressed at 2000 C with hot melt glue on special machines.						
i	Side Unit	Nos.	7				
	Providing & Fixing Director Series side table of an overall size 1050x500x710 with top made of 36mm thick postformed particle board. The understructure body is made of 18mm thick Pre Laminated Particle Board. The side unit has with one shutter on one side made up of 18mm post formed particle board and shelves for placing CPU, UPS on the other side. The unit also has keyboard tray made of CRCA steel sheet duly powder coated. All the edges are sealed with 2mm PVC edge banding tape and unexposed edges sealed with 0.6mm PVC edge banding tape pressed at 2000 C with hot melt glue on special machines.						
	Back Unit	Nos.	7				
	Providing & Fixing back storage unit of an overall size 2650x500x750 with top made of 36mm thick post formed particle board. The understructure body is made of 18mm thick Pre Laminated Particle Board. The sides and facia are made of 18mm thick post formed particle board. The unit has two storages with openable shutters having single top with proper locking arrangement. The unit has two storages with openable shutter on two sides and two lateral filing units in center with openable glass shutter above. All the exposed edges sealed with 2mm PVC edge banding tape and all unexposed edges sealed with 0.6mm edge banding tape pressed at 2000 C with hot melt glue on special machines.						
11	Table For (JOINT SECRETARY - 1,2 & 3) 1650x900x750mm + FormerModule 1200x900x750mm	Nos.	3				

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
	Providing and fixing presidential table of overall size of 2850x900x750 with top made of 36mm thick post formed particle board. The main table understructure has verticals made of 36mm thick post formed legs supported with 32mm (D) steel studs duly powder coated and modesty made of 18mm thick prelaminated particle board having decorative laminate on both side. The table has a former module of an overall size 1200x900 supported on steel vertical post of 65mm dia duly powder coated. The table has a former module of an overall size 1200x900 supported on steel vertical post of 65mm dia duly powder coated. The former module is made up of 36mm thick board pressed with 0.4mm thick membrane foil clad pressed with PU glue. The foil is precoated with a layer of polyurethane for better scratch resistance.						
-	Side Unit	Nos.	3				
	Presidential side table of an overall size 1050x500x750 with top made of 36mm post formed particle board. The understructure body is made of 18mm thick Pre Laminated Particle Board. The side unit has one shutter on one side with facia made of 18mm thick post formed laminate with half rounded edges and other side has shelf and vertical for placing CPU,UPS etc. The unit has keyboard tray made of CRCA steel sheet duly powder coated. All the exposed edges sealed with 2mm PVC edge banding tape and all unexposed edges sealed with 0.6mm edge banding tape pressed at 2000 C with hot melt glue on special machines.						
	Back Unit	Nos.	3				
	Presidential back storage unit of an overall size 1800x500x750 with top made of 36mm thick post formed particle board. The understructure body is made of 18mm thick Pre Laminated Particle Board. The sides and facia are made of 18mm thick post formed particle board. The unit has two storages with openable shutters having single top with proper locking arrangement. All the exposed edges sealed with 2mm PVC edge banding tape and all unexposed edges sealed with 0.6mm edge banding tape pressed at 2000 C with hot melt glue on special machines.						
5	Table for Seientist & P.S. Joint Secretary with Drawer, Keyboard & CPU Size 1800x900x750	Nos.	6				

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
	Providing and fixing Sr. P.P.S table of size 1800x900x750 with top made of 25mm thick plain particle board having post formed decorative laminate on top and balancing laminate on unexposed face. The understructure is made of 18mm thick prelaminated particle board with all exposed edges sealed with 2mm PVC edge banding tape and all unexposed edges sealed with 0.6mm edge banding tape pressed at 2000 C with hot melt glue on special machines. Table has a provision for wire manager caps at top. The table also has a provision of drawer of size 450x575x725 made up of 18mm thick pre laminated particle board body with facia made of 18mm thick membrane foiled with proper locking arrangement. Keyboard & CPU are made up of CRCA Steel.						
i	Side Unit for Seientist & P.S. Joint Secretary	Nos.	6				
	Providing & Fixing Side Storage Unit of overall size 900x450x725 with top made of 25mm thick postformed particle board and understructure made of 18mm prelaminated particle board, having one openable shutter box on one side with shelf and two top drawers and one filing drawer on other side. All exposed edges are sealed with 2mm thick PVC edge banding tape and all unexposed edges sealed with 0.6mm edge banding tape pressed at 2000 C with hot melt glue on special machines. The unit is provided with proper locking arrangement.						
6	Table for P.S., Steno & Staff with Drawer, Keyboard & CPU						

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
	Providing and fixing table of size 1350x750x750 with top made of 25mm thick plain particle board having post formed decorative laminate on top and balancing laminate on unexposed face. The understructure is made of 18mm thick prelaminated particle board with all exposed edges sealed with 2mm PVC edge banding tape and all unexposed edges sealed with 0.6mm edge banding tape pressed at 2000 C with hot melt glue on special machines. Table has a provision for wire manager caps at top. The table also has a provision of drawer of size 450x575x725 made up of 18mm thick pre laminated particle board with facia made of 18mm thick membrane foiled with proper locking arrangement. Keyboard & CPU are made up of CRCA Steel.						
i	1500x750x750	Nos.	5				
ii	1350x600x750	Nos.	2				
iii	1200x600x750		6				
12	Storages (Openable shutter)						
	Providing & Fixing Storage Units with top made up of 25mm postformed particle board with 0.6mm decorative laminate pressed on it. The understructure is made of 18mm prelaminated particle board having openable shutters. All the exposed edges of the storage are sealed with 2mm thick PVC edge banding tape and all unexposed edges sealed with 0.6mm edge banding tape pressed at 2000 C with hot melt glue on special machines, with proper locking arrangement. The shelves are made of 0.8mm thick CRCA steel sheet duly powder coated.						
	900x450x2100	Nos.	40				
	900x450x750	Nos.	20				
	750x450x750	Nos.	10				
13	Meeting Table (HFM) (for 6 Person)	Nos.	2				
	Providing & Fixing Meeting Table of an overall size 1800x900x750 with top made of 25mm thick prelaminated particle board. The table has understructure with verticals made of 25mm thick prelaminated particle board & modesty made of 18mm thick prelaminated particle board having decorative laminate on both sides. All exposed edges are sealed with 2mm PVC edge banding tape and unexposed edges sealed with 0.6mm PVC edge banding tape pressed at 2000 C with hot melt glue on special machines.						
14	Conference Table						

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
	Providing & Fixing Conference Table of height 750mm with two seater module of size 1350(W)x550(D). The top made of 36mm thick MDF board pressed with 0.4mm thick membrane foil clad pressed with PU glue. The foil is precoated with a layer of polyurethane for better scratch resistance. The table vertical are made of 25mm thick postformed particle board & modesty made of 18mm thick prelaminated particle board with decorative laminate on both sides. All the edges are sealed with 2mm PVC edge banding tape and unexposed edges sealed with 0.6mm PVC edge banding tape pressed at 2000 C with hot melt glue on special machines. The Round corner piece is made up of 36mm thick MDF board pressed with 0.4mm thick membrane foil clad pressed with PU glue and supported with post of 65mm dia made of CRCA sheet duly powder coated. The complete table unit is made up of combination of tables and round corner pieces as per site measurements.						
i	Conference Room	P.Seat	8				
ii	Meeting Room	P.Seat	12				
ii	Conference Rooms	P.Seat	32				
17	Reception Table with Side Module	Nos.	1				
	Providing and fixing reception table of an overall size of 1500x700x1050 with top made up of 25mm thick Pre Laminated Particle Board having exposed edges sealed with PVC edge banding tape. The top is supported on steel vertical studs of 50mm(D) and lower Modesty in perforated steel sheet duly powder coated. The main table has a transaction top made of 10mm thick toughened glass supported on steel studs and upper Modesty duly powder coated. The main table top is supported by two side tables with top in elliptical shape of size 500x300x585 made of 25mm thick Pre Laminated Particle Board duly supported by steel studs of 50mm(D), with perforated steel modesty underneath duly powder coated.						
18	Centre Table	Nos.	8				
	Providing and supplying center table of size 900X450X450 with top made of 12mm thick bevelled glass and understructure with a shelf is made of 18mm thick prelaminated particle board with all exposed edges sealed with 2mm PVC edge banding tape and unexposed edges sealed with 0.6mm PVC edge banding tape pressed at 2000 C with hot melt glue on special machines.						
19	Side Table	Nos.	16				

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
	Providing and supplying Side table of size 450X450X450 with top made of 12mm thick bevelled glass and understructure with a shelf is made of 18mm thick prelaminated particle board with all exposed edges sealed with 2mm PVC edge banding tape and unexposed edges sealed with 0.6mm PVC edge banding tape pressed at 2000 C with hot melt glue on special machines.						
20	Reception Sofa						
	Providing and supplying of steel sofa having chrome plated legs capsule pipe of 40x20 mm of 14 gauges. The pipe will be duly chrome plated with thickness of 45-50 microns. The seat and back will be made of good quality high density foam with a density of 32 kg per cum. The inner structure will consist of good quality wood and hot pressed ply of 12 mm thickness duly anti termite treated. The thickness of foam in seat and back will be 5 inches and upholstered with good quality of leatherite of approved colour/ shade.						
i	Three Seater	Nos.	1				
iii	Single Seater	Nos.	1				
21	Sofa						
	Wooden Sofa :- Fully upholstered sofa with good qulaity seaosed wood duly anti termite treated. In seat, good quality flat spring steel are used and are covered by "U" foam. Seat cushion has premium quality rubber . The back is made of high density foam duly upholstered with fabric or leatherite. Leatherite or fabric sofa having arm covered with leatherite or fabric.						
i	Single Seater	Nos.	15				
ii	Two Seater	Nos.	17				
iii	Three Seater	Nos.	5				
27	High Back Revolving Chair for HFM	Nos.	1				

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
	High Back Revolving Chair Upholstry/Frame: One piece ply in seat & back with foam & polyfill and leatherite upholstery Seat & back size : 520 mm (w) x 500 mm (D) , 520 mm (w) x 800 mm (H) Arms: Wooden arms with melamine polish with chrome plated end caps Mechanism : Central tilt mechanism/ Torsion bar mechanism Height Adjustment : Gas Lift Base : Chrome plated base with twin wheel castors						
28	Visitor's Chair for HFM	Nos.	4				
	Visitor Chair Upholstry/Frame: One piece ply in seat & back with foam & polyfill and leatherite upholstery Seat & back size : 520 mm (w) x 500 mm (D) , 520 mm (w) x 580 mm (H) Arms: Wooden arms with melamine polish with chrome plated end caps Base : Chrome plated fixed base with PVC shoes						
29	Chairs For Director & Deputy Director	Nos.	7				
	Medium Back Revolving Chair Upholstry/Frame: One piece ply and ring type spring in seat & back with foam & polyfill and leatherite upholstery Seat & back size : 520 mm (w) x 500 mm (D) , 520 mm (w) x 580 mm (H) Arms: Wooden arms with melamine polish Mechanism : Central tilt mechanism/ Torsion bar mechanism Height Adjustment : Gas Lift Base : Wooden base with twin wheel castors						
30	Visitor Chair for Director & Deputy Director	Nos.	21				

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
	Visitor Chair Upholstry/Frame: One piece ply and ring type spring in seat & back with foam & polyfill and letherite upholstery Seat & back size : 520 mm (w) x 500 mm (D) , 520 mm (w) x 580 mm (H) Arms: Wooden arms with melamine polish Base : Powder coated fixed base						
31	Chair for joint Sec., Scientist & P.S.J.S	Nos.	9				
	High Back Revolving Chair Upholstry/Frame: 12 mm hot pressed ply covered with moulded PU foam in seat & Back with ABS/ PP Cover & Fabric upholstery Seat & back size : 500 mm (w) x 460 mm (D) , 500 mm (w) x 720 mm (H) Arms: D-shape steel inserted PU arms Mechanism : Center tilt mechanism Height Adjustment : Gas Lift Base : Steel Inserted nylone base with twin wheel castors						
32	Visitor's Chair for Consultant/Tech/ Deo/PS/Peon	Nos.	24				
	Visitor Chair Upholstry/Frame: 12 mm hot pressed ply covered with moulded PU foam in seat & Back with ABS/ PP Cover & Fabric upholstery Seat & back size : 500 mm (w) x 460 mm (D) , 500 mm (w) x 490 mm (H) Arms: D-shape steel inserted PU arms Base : Fixed steel base with PVC shoes						
34	Chair for Workstation, P.S. Steno & Staff	Nos.	35				

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
	Medium Back Revolving Workstation Chair Upholstry/Frame: PU mould in seat & Back with ABS/ PP Cover & Fabric upholstery Seat & back size : 490 mm (w) x 460 mm (D), 430 mm (w) x 500 mm (H) Arms: Steel inserted PU arms Mechanism : Push back mechanism Height Adjustment : Gas Lift Base : Steel Inserted nylon base with twin wheel castors						
35	Chair for Conference Table, Reception Table	Nos.	53				
	Medium Back Revolving Chair Upholstry/Frame: PU mould in seat & Back with polyprpylene Cover & Fabric upholstery Seat & back size : 490 mm (w) x 460 mm (D) , 430 mm (w) x 470 mm (H) Arms: Y-shape PVC arms Mechanism : Push back Height Adjustment : Gas Lift Base : Steel Inserted nylon base with twin wheel castors						
36	Chairs Visitor for Steno	Nos.	6				
	Visitor chair Upholstry/Frame: 12 mm hot pressed ply in seat and back with PU moulded foam and fabric upholstery with PVC lipping all around. Seat & back size : 480 mm (w) x 440 mm (D) , 480 mm (w) x 460 mm (H) Arms: Steel inserted PU arms Base : Fixed steel base with PVC shoes						
37	Venetian Blinds						
	100 mm wide vertical blinds comprising of rectangular channel with built in gear and clutch system. Vista/Mac or Equ. Make.	Sqm.	250				
38	Wall Panelling						

S.NO.	DESCRIPTION	UNIT	QTY.	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
	Wall Panelling made of Mirandi Wood framework 2'x2' grid one side 6mm BWR grade plywood 4mm thick backing with veneer	Sqm.	400				
39	Book Case	Nos.	10				
	Providing & Fixing Book Case of an overall size 915(W)x325(D)x1745(H) made of 1mm thick CRC sheet with brass lock 6 lever with duplicate keys, duly powder coated. The Book Case is provided with top sliding 4 glass shutters.						
40	Steel Almirah	Nos.	15				
	Providing and fixing office almirah of an overall size 910x480x1980(h) with CRCA body of 0.8mm thick duly powder coated with openable shutters having proper inbuilt locking arrangement with rod and handle. The almirah has 4 shelves making 5 compartments.						
	Total						

-	roject Name: Supply, installation, testing & commissioning of Internal furnishing & related minor Fivil, Plumbing, Electrical, LAN,WI-FI works etc for DHR at 2nd Floor of Red Cross Building , New Delhi									
	ABSTRACT O	0F COST(Civil Work)								
S.No	DESCRIPTION OF WORK	AMOUNT (Rs)								
1	Concrete Work									
2	RCC WORK									
3	BRICK WORK									
4	DOORS & WINDOWS									
5	FLOORING									
6	FINISHING									
7	DISMANTLING									
8	SOIL, WASTE AND VENT PIPES									
9	SANITARY FIXTURES									
	TOTAL									

				BOQ for Civil	BOQ for Civil Work			
Item No	Description Of Item	Total Qty		Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)		
1	2	3	4	5	6	7		
1.00	Concrete Work							
1.01	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:							
a)	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	2.00	cum					
b)	1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size).	4.00	cum					
1.02	Providing and laying in position cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 broken brick bats 40 mm nominal size) including consolidation etc all complete.							
		2.00	Cum					
	Total							

			Unit 4	BOQ for Civil Work			
Item No	Description Of Item	Total Qty 3		Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
1	2			5	6	7	
2.00	REINFORCED CEMENT CONCRETE						
2.01	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:2:4 (1 cement : 2 coarse sand : 4 graded stoneaggregate 20 mm nominal size).						
a)	All work above plinth level upto floor V level	3.00	cum				
2.01	Centering and shuttering including strutting, propping etc. and removal of form for:						
a)	Shelves (Cast in situ)	4.00	sqm				
b)	lintels, beams, plinth beams. girders. bressumers and cantilevers.	50.00	sqm				
c)	Small lintels not exceeding 1.5m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like.	20.00	sqm				
d)	Weather shade, Chajjas, corbels etc., including edges	5.00	sqm				
2.03	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.						
a)	Thermo-Mechanically Treated bars						

	BOQ for Civil Work								
Item No	Description Of Item	Total Qty	Unit	Rate in	Rate in Words(in Rs)	Amount in			
				Figures(Rs)		Figures(in Rs)			
1	2	3	4	5	6	7			
i)	At all levels	60.00	Kg						
	Total								

			BOQ for Civil Work								
Item No	Description Of Item 2	Total Qty 3	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs) 7					
1			4	5	6						
3.00	BRICK WORK										
3.01	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :										
a)	Cement mortar 1:6 (1 cement: 6 coarse sand)	10.00	cum								
3.02	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.										
a)	Cement mortar 1:4 (1 cement :4 coarse sand)	100.00	sqm								
3.03	Extra for providing and placing in position 2 Nos. 6mm dia. M.S. bars at every third course of half brick masonry (with F.P.S. bricks).	100.00	sqm								
	Total										

				BOQ for Civil Work			
Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
1	2	3	4	5	6	7	
4.00	DOORS, WINDOWS AND FITTINGS						
4.01	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-incharge. (Glazing, paneling and dash fasteners to be paid for separately) :						
a)	For fixed portion						
i)	Polyester powder coated aluminium (minimum thickness						
	of polyester powder coating 50 micron)	100.00	kg				

tem No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
b)	For shutters of doors, windows & ventilators including providing and fixing hinges/pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately).					
i)	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	100.00	kç			
4.02	Providing and fixing anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868. Minimum anodic coating of grade AC 15) sub frame work for windows and ventilators a with extruded built up standard tubular sections of approved make conforming to IS: 733 and IS : 1285 fixed with dash fastener of required dia and size(Dash fastener to be paid for separately).	100.00	kç			
4.03	Providing and fixing 12mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge.					

tem No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
a)	Pre-laminated particle board with decorative lamination on both sides.	5.00	Sqm			
4.04	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item) :					
a)	With float glass panes of 5.50 mm thickness	5.00	sqm			
4.05	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.					
a)	With brass cover plate minimum 1.25 mm thickness	4.00	each			

				BOQ for Civil Work			
Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
1	2	3	4	5	6	7	
4.06	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment).						
		50.00	kg				
4.07	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters :						
a)	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.	5.00	sqm				

		BOQ for Civil Work							
ltem No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)			
1	2	3	4	5	6	7			
4.08	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of shutters (over all area of door shutter to be measured).	5.00	sqn	h					
4.09	Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors (cost of glass excluded) (overall area of door shutter to be measured) :								
a)	Rectangular or square.	1.00	sqn						
4.10	Extra for providing frosted glass panes 4 mm thick instead of ordinary float glass panes 4 mm thick in doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured).	1.00	sqn	h					
4.11	Providing glass panes, with wooden fillets wherever necessary.								
a)	Float glass panes of thickness 4 mm	1.00	Sqn	1					
4.12	Extra for Providing etching on glass panes in doors, windows shutters, partition etc in desired pattern complete as per drawing and as directed.(Area of etching shall be measered for payment)	2.00	sqn						

			BOQ for Civil Work							
tem No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)				
1	2	3	4	5	6	7				
4.13	Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt / suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S including cost of adhesive of approved quality									
a)	1.0 mm thick.	1.00	sqr							
4.14	Providing and fixing Aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI:3564, embossed on the body,door weight upto 35 kg and door width upto 700 mm), with necessary accessories and screws etc. complete.3	2.00	each							
4.15	Providing and fixing aluminium sliding door bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete:									
a)	300x16 mm	2.00	each	1						
b)	250x16 mm	2.00	each							

				BOQ for Civil Work			
Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
1	2	3	4	5	6	7	
4.16	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete:						
a)	250x10 mm	4.00	each				
b)	150x10 mm	4.00	each				
4.17	Providing and fixing aluminium pull bolt lock anodised ISI marked (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with necessary screws bolts, nut and washers etc. complete.	2.00	each				
4.18	Providing and fixing 50cm long aluminium kicking plate 100x3.15 mm anodised (anodic coating not less than grade AC 10 as per IS :1868) transparent or dyed to required colour or shade with necessary screws etc. complete.	2.00	each				
4.19	Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade wilh necessary screws etc. complete :						

				BOQ for Civil Work			
tem No	Description Of Item	Total Qty		Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
1	2	3	4	5	6	7	
a)	125 mm	4.00	each				
b)	100 mm	4.00	each				
4.20	Providing and fixing aluminium hanging floor door stopper ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with necessary screws etc. complete.						
a)	Twin rubber stopper	4.00	each				
4.21	Providing and fixing bright finished brass 100 mm mortice latch and lock ISI marked with six levers and a pair of anodised (anodic coating not less than grade AC 10 as per IS : 1868) aluminium lever handles of approved quality with necessary screws etc. complete.						
		2.00	each				
4.22	Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineer-in-charge complete.						
a)	255 X 19 mm	2.00	each				

				BOQ for Civil Work		
tem No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
4.23	Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0 mm thick & 2100 mm long with SS screws etc .complete as per direction of Engineer-in-Charge.					
a)	Powder coated minimum thickness 50 micron aluminium tubular handle bar.	2.00	each			
4.24	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	2.00	each			
4.25	Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete.					
a)	Powder coated minimum thickness 50 micron aluminium.	2.00	each			
4.26	Providing and fixing aluminium round shape handle of outer dia 100mm with SS screws etc. complete as per direction of Engineer-in-charge					
a)	Powder coated minimum thickness 50 micron aluminium	2.00	each			
	Total					

				BOQ for Civil Work			
tem No	2	Total Qty 3	Unit 4	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
1				5	6	7	
5.00	Flooring						
5.01	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacturer) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	50.00	sqm				
5.02	Providing and laying rectified Glazed Ceramic floor tiles 300x300 mm or more (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand) including pointing the joints with white cement and matching pigments etc., complete.	10.00	sqm				

Description Of Item 2 roviding and laying vitrified floor tiles in different sizes hickness to be specified by the manufacturer) with ater absorption's less than 0.08% and conforming to IS 15622 of approved make in all colours and shades, laid n 20mm thick cement mortar 1:4 (1 cement: 4 coarse and) including grouting the joints with white cement and atching pigments etc., complete	Total Qty 3	Unit 4	Rate in Figures(Rs) 5	Rate in Words(in Rs)	Amount in Figures(in Rs) 7
roviding and laying vitrified floor tiles in different sizes hickness to be specified by the manufacturer) with ater absorption's less than 0.08% and conforming to IS 15622 of approved make in all colours and shades, laid in 20mm thick cement mortar 1:4 (1 cement: 4 coarse and) including grouting the joints with white cement and	3	4	5	6	7
hickness to be specified by the manufacturer) with ater absorption's less than 0.08% and conforming to IS 15622 of approved make in all colours and shades, laid in 20mm thick cement mortar 1:4 (1 cement: 4 coarse and) including grouting the joints with white cement and					
ize of Tile 600x600 mm	100.00	sqm	 		
roviding and laying Vitrified tiles in different sizes hickness to be specified by manufacturer), with water osorption less than 0.08 % and conforming to I.S. 5622, of approved make, in all colours & shade, in kirting, riser of steps, over 12 mm thick bed of cement fortar 1:3 (1 cement: 3 coarse sand), including grouting he joint with white cement & matching pigments etc.					
Simplete.	40.00	sqm	I		
bs 56 kii 10	sorption less than 0.08 % and conforming to I.S. 522, of approved make, in all colours & shade, in rting, riser of steps, over 12 mm thick bed of cement rtar 1:3 (1 cement: 3 coarse sand), including grouting joint with white cement & matching pigments etc. mplete.	sorption less than 0.08 % and conforming to I.S. 522, of approved make, in all colours & shade, in rting, riser of steps, over 12 mm thick bed of cement rtar 1:3 (1 cement: 3 coarse sand), including grouting joint with white cement & matching pigments etc.	sorption less than 0.08 % and conforming to I.S. 522, of approved make, in all colours & shade, in rting, riser of steps, over 12 mm thick bed of cement rtar 1:3 (1 cement: 3 coarse sand), including grouting joint with white cement & matching pigments etc. mplete.	sorption less than 0.08 % and conforming to I.S. 522, of approved make, in all colours & shade, in rting, riser of steps, over 12 mm thick bed of cement rtar 1:3 (1 cement: 3 coarse sand), including grouting joint with white cement & matching pigments etc. mplete.	sorption less than 0.08 % and conforming to I.S. 522, of approved make, in all colours & shade, in rting, riser of steps, over 12 mm thick bed of cement rtar 1:3 (1 cement: 3 coarse sand), including grouting joint with white cement & matching pigments etc. mplete.

	BOQ for Civil Work									
tem No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)				
1	2	3	4	5	6	7				
5.05	Providing and fixing 18mm thick gang saw cut mirror polished premoulded and prepolished) machine cut for kitchen platforms, vanity counters, window sills. facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, induding rubbing, curing, moulding and polishing to edge to give high gloss finish etc. complete at all levels									
a)	Granite of any colour and shade									
i)	Area of slab upto 0.50 sqm	2.00	sqm	1						
ii)	Area of slab over 0.50 sqm.	5.00	sqr							
5.06	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc complete as per design approved by Engineer-in-Charge									
a)	Granite work.	7.00	metre)						
5.07	Extra for fixing marble /granite stone over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive including cleaning etc. complete.	5.00	metre							

	Description Of Item	Total Qty	Unit	BOQ for Civil Work			
tem No				Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
1	2	3	4	5	6	7	
	Extra for providing opening of required size & shape for wash basins/ kitchen sink in kitchen platform, vanity counters and similar location in marble/Granite/stone work including necessary holes for pillar taps etc. including rubbing and polishing of cut edges etc. complete.		Nos				
	Total						

		Total Qty		BOQ for Civil Work			
Item No	Description Of Item		Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
1	2	3	4	5	6	7	
6.00	Finishing						
6.01	12 mm cement plaster of mix:						
a)	1:6 (1 cement: 6 fine sand)	200.00	sqm				
6.02	15 mm cement plaster on the rough side of single or half brick wall of mix:						
a)	1:6 (1 cement: 6 fine sand)	200.00	sqm				
6.03	6 mm cement plaster of mix:						
a)	1:3 (1 cement: 3 fine sand)	200.00	sqm				
6.04	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete	100.00	Sqm				
6.05	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade						
a)	New work (two or more coats) over and including priming coat with cement primer.	100.00	sqm				
6.06	Applying one coat of cement primer of approved brand and manufacture on wall surface:						
a)	Cement primer.	500.00	sqm				

	Description Of Item	Total Qty		BOQ for Civil Work			
tem No			Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
1	2	3	4	5	6	7	
6.07	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade						
a)	Two or more coats on new work	50.00	sqm				
6.08	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade:						
a)	Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture.	50.00	sqm				
6.09	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	3726.00	sqm				
6.10	Distempering with 1st quality acrylic distemper, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.						
a)	Two coats	745.20	sqm				

		BOQ for Civil Work						
Item No	Description Of Item	Total Qty		Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)		
1	2	3	4	5	6	7		
	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.							
a)	Two coats	2980.80	sqm					
	Providing and fixing 24 gauge and 18mm mesh size chicken wiremesh at junction of concrete and brick work and other locations at all heights including cutting to required size and side laps of minimum 75mm and fixing in positions with nails/screws etc. as directed and as required at site.	50.00	sqm					
		50.00	Sym					
	Total							

	Description Of Item	Total Qty		BOQ for Civil Work			
Item No			Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
1	2	3	4	5	6	7	
7.00	DISMANTLING						
7.01	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge						
a)	In cement mortar	10.24	Cum				
7.02	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :						
a)	Of area 3 sq. metres and below	10.00	Each				
b)	Of area beyond 3 sq. metres	5.00	Each				
7.03	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.						
a)	For thickness of tiles 10 mm to 25 mm	200.00	Sqm.				
b)	For thickness of tiles above 25 mm and up to 40 mm	50.00	Sqm.				

	Description Of Item			BOQ for Civil Work			
Item No		Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
1	2	3	4	5	6	7	
7.04	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.						
		200.00	Sqm.				
7.05	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	20.00	Cum				
7.06	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	3.00	Cum				
	Total						

	Description Of Item	Total Qty		BOQ for Civil Work			
Item No			Unit 4	Rate in Figures(Rs) 5	Rate in Words(in Rs)	Amount in Figures(in Rs) 7	
1	2	3			6		
8.00	SANITARY FIXTURES						
8.01	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I.brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :						
a)	W.C. pan with ISI marked black solid plastic seat and lid	2.00	each				
8.02	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require :						
a)	White Vitreous China Flat back wash basin size 550x 400 mm with single 15 mm C.P. brass pillar tap						
		2.00	each				

		Total Qty		BOQ for Civil Work			
Item No	Description Of Item		Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
1	2	3	4	5	6	7	
8.03	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :						
a)	Rectangular shape 453x357 mm	2.00	each				
b)	rectangular shape mirror 0.6 sq.m. area	2.00	sq.m.				
8.04	Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.	4.00	each				
8.05	Providing and fixing toilet paper holder :						
a)	Vitreous china	2.00	each				
8.06	Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.						
		2.00	each				

	BOQ for Civil Work									
Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)				
1	2	3	4	5	6	7				
8.07	Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/6 litre (adjustable to 4 litre/8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete.	2.00	each							
8.08	Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	2.00	Each							
8.09	Providing and fixing water Jet Nozzle with hose pipe and haif turn CP brass angle valve to be fitted with seat cover of european water closet complete in all respect of approved quality	2.00	Each							
8.10	Providing and fixing CP brass towel rail size of 600x20 mm of approved make complete with CP brackets fixed to wooden cleats with CP brass screws(Jaquar model no.1111 or equivalent model of other approved make)	2.00	Each							

		BOQ for Civil Work							
Item No	Description Of Item 2	Total Qty 3		Rate in Figures(Rs) 5	Rate in Words(in Rs)	Amount in Figures(in Rs) 7			
					6				
	Providing and fixing brass coat hook of approved quality and make complete with material of fixing	4.00	Each						
	Extra for providing and fixing white vitreous china oval shape wash basin in place of normal wash basin with CI/MS brackets painted white, 15 mm CP brass pillar taps, 32 mm CP brass waste of standard pattern, including painting of fittings and brackets cutting and making good the walls wherever required								
a)	Counter top oval shape wash basin size 550x470 mm with centre tap hole, single 15 mm CP brass swan neck type pillar tap	2.00	Each						
	Total								

		Total Qty		BOQ for Civil Work			
Item No	Description Of Item		Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
1	2	3	4	5	6	7	
9.00	SOIL, WASTE AND VENT PIPES						
9.01	Providing and fixing soil, waste and vent pipes.						
a)	100 mm dia.						
i)	Centrifugally cast (spun) iron socket & spigot (S&S) pipe as per IS: 3989	10.00	Metre				
9.02	Providing and fixing M.S holder-bat clamps of approved design to Sand Cast iron/ cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including cost of cutting holes and making good the walls etc.						
a)	for 100 mm dia. pipe	2.00	Each				
9.03	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.						
a)	100 mm						
a i)	Sand cast iron S&S as per IS-3989	2.00	Each				
9.04	Providing and fixing plain bend of required degree.						
a)	100 mm	0.00	Fach				
a i)	Sand cast iron S&S as per IS:3989	2.00	Each				

				BOQ for Civil Work			
Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
1	2	3	4	5	6	7	
9.05	Providing and fixing heel rest sanitary bend.						
a)	100 mm dia						
a.i)	sand cast iron S&S as per IS-3989	2.00	Each				
9.06	Providing and fixing double equal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete :						
a)	100x100x100x100 mm						
b)	Sand cast iron S&S as per IS - 3989	2.00	Each				
9.07	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete.						
a)	100x100x100mm						
a.i)	sand cast iron S&S as per IS-3989	2.00	Each				
9.08	Providing and fixing door piece, insertion rubber washer 3mm thick, bolts and nuts complete						
a)	100 mm						
a.ii)	sand cast iron S&S as per IS-3989	2.00	Each				
9.09	Providing and fixing terminal guard.						
a)	100 mm	2.00	Each				
a.ii)	sand cast iron S&S as per IS-3989						

				BOQ for Civil Work				
Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)		
1	2	3	4	5	6	7		
9.10	Providing and fixing collar							
a)	100 mm							
a.ii)	Sand cast iron S&S as per IS-3989	2.00	Each					
9.11	Providing lead caulked joints to sand cast iron /centrifugally cast (spun) iron pipes and fittings of diameter:							
a)	100 mm	5.00	Each					
9.12	Providing Drip seal joint of approved make for the sand cast iron/centrifugaly cast iron pipes where the workability of lead joint can be effected due to space constraints.							
a)	100 mm	5.00	Each					
9.13	Providing and fixing M.S. stays and clamps for sand cast iron / centrifugally cast (spun) iron pipes of diameter :							
a)	100 mm	5.00	Each					
9.14	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors:							
a)	100 mm inlet and 100 mm outlet							

				BOQ for Civil Work				
Item No	Description Of Item	Total Qty		Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)		
1	2	3	4	5	6	7		
a i)	Sand cast iron S&S as per IS-3989	2.00	Each					
9.15	Cutting chases in brick masonary walls for following diameter sand cast iron/centrifugally cast (spun) iron pipes and making good the same with cement concrete 1:3:6 (1 cement:3 coarse sand:6 graded stone aggregate 12.5 mm nominal size) including necessary plaster and pointing in cement mortar 1:4 (1 cement: 4 coarse sand):							
a)	100 mm diameter pipe	20.00	Metre					
9.16	Painting sand cast iron / centrifugally cast (spun) iron soil, waste vent pipes and fittings with two coats of synthetic enamel paint off any colour such as chocolate, grey, or buff etc. over a coat of primer (of approved quality) for new work:							
a)	100 mm diameter pipe	10.00	Metre					
9.17	Providing and fixing floor drain points formed out of 65 mm dia GI elbow, including with 75mm dia Stainless Steel grating with frame, embedded in floor, all complete as directed.	2.00	Each					

				BOQ for Civil Work			
Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)	
1	2	3	4	5	6	7	
9.18	Providing and fixing C.P. brass bottle trap for wash basin including CP waste fittings complete 32 mm dia complete in all respect of approved quality.	4.00	Each				
9.19	Providing and fixing C.P. brass bottle trap for sinks & urinal basin including CP waste fittings complete 40 mm dia complete in all respect of approved quality.						
		2.00	Each				
9.20	Providing and laying cement concrete 1:2:4 (1 cement:2 coarse sand:4 graded stone aggregate 20 mm nominal size) 80 mm thick all-round the SCI/centrifugally S&S pipe diameter.						
a)	100 mm dia	10.00	Metre				
9.21	Providing and fixing dash fastner made of rust proof plated steel for holding the soil/waste supply pipes complete in all respect						
a)	Dash fastner for pipe more than 25 mm dia to 150 mm dia pipe of required size but not less than size 10 mm dia and 50 mm long minimum & shall be capable of taking 6 tonnes load and also include the supporting angles 35x35x5 mm/approved steel structures support as per drawing.	2.00	Each				

				BOQ for Civil Work				
Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)		
1	2	3	4	5	6	7		
9.22	Providing and fixing G.I EXTENSION PIECE for 100 mm dia floor trap formed out of main pipe(Type A) with multiple side inlets, suitable for various dia pipes, side connections, including all fixtures and fittings as per site conditions and as per standard details and water tight sealing of joints and area surrounding the grating and as directed.		Each					
	Providing and fixing cPVC. pipes complete with cPVC fittings including painting, jointing, testing the cost of cutting the chases and making good the same for waste water disposal complete as per direction of engineer incharge.							
a)	32 mm dia nominal bore (Wash basin to floor trap/floor drain)	10.00	Metre					
b)	40 mm dia nominal bore (Sink,Urinal to floor trap)	10.00	Metre					
c)	50 mm dia nominal bore (Floor Drain to Floor Trap)	10.00	Metre					
	Total							

	SUMMARY OF COST ESTI	MATE FOR ELECTRICAL	WORKS RED CROSS -NEW DELHI
S.No.	DESCRIPTION	Amount In Figure (In Rs.)	Amount in Words (Rs.)
1	SUBHEAD-1:MCBDISTRIBUTION BOARDS.		
2	SUB HEAD 2: WIRING		
3	SUB HEAD: 3 - LIGHT FIXTURE AND FANS		
4	SUB HEAD 4 : TELEPHONE SYSTEM		
	SUBHEAD5-:CONDUITINGFOR COMPUTER SYSTEM .		
6	SUB HEAD 6 : FIRE DETECTION AND ALARM		
	GRAND TOTAL FOR ALL ELECTRICAL WORKS		

		Description.			_ :		
6.No.			Unit.	Quantity	Rate in Figures (in Rs.)	Rate in words (in Rs.)	Amount in Rs.
1		2	3	4	5	6	7
		SUB HEAD:1 MCB DISTRIBUTION BOARDS.		+			
1.00		MCB DISTRIBUTION BOARD		+ 	++		·
		Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, B		+			
		/C/D curve, miniature circuit breaker suitable for inductive					
		load and lighting load of following poles in the existing MCB					
		DB complete with connections, testing and commissioning etc.					
1.01		las required.					
	i	Single pole	Each	10			
		Supplying and fixing following rating, double pole, (single					
		phase and neutral), 240 volts, residual current circuit breaker					
		(RCCB), having a sensitivity current upto 300 milliamperes in					
		the existing MCB DB complete with connections, testing and					
1.02		commissioning etc. as required.					
	<u>i</u>	25 amps (100 MA)	Each	1			
	ii	63 amps (300 MA)	Each	2			
		SUBHEAD-1:MCBDISTRIBUTION BOARDS.					
		SUB HEAD 2: WIRING			+		
2.00		WIRING		+	•		
	i	Wiring for light point/fanpoint/ exhaust fan point/call bell		}	-+		{ {
		point with 1.5 sq.mm. PVC insulated, fire retardant low smoke					
		(FRLS) copper conductor cable, single core/ multi strand, in					
		steel conduit (Including supplying & recess laying of MS					
		conduit and accessories) including the following and complete					
2.01.1		as required.					
†	ii	Supplying and Fixing Modular type switches (modular Bell		+	++		·
		push in case of call bell points) in suitable size modular metal					
		boxes, base plate & modular cover plates, space for fixing					
		electronic fan regulator in case of fan point wiring & space for					
		fixing 5A socket on the board etc.					
	iii	Supplying and fixing Hexagonal fan Boxes with 3 mm thick		·····			1
		hylem sheet covers in case of Fan Points			<u> </u>		l
	iv	Supplying & Fixing Ceiling Rose in case of Exhaust Fan Points					1
		etc.					
		Note :					
		i) Unless otherwise specified all the conduiting work to be done					
		in recess		<u> </u>	<u> </u>		i I

		Description.			······		
S.No.		Description.			Rate in Figures	Rate in words	
0.110.			Unit.	Quantity	(in Rs.)	(in Rs.)	Amount in Rs.
1		2	3	4	5	6	7
		Point wiring as mentioned above	Point	40	+		
		······································			·		
		Wiring for secondary light point(Group point wiring / fan		+ 	 		
		point/ exhaust fan point/ call bell point with 3x1.5 sq.mm FR					
		PVC insulated, fire retardant low smoke (FRLS) copper					
		conductor single core cable in surface / recessed steel conduit,					
0.01.0		(looped from above primary point wiring and controlled by					
2.01.2		same modular switch .)etc as required.	Dalat	10	 		
		Point wiring as mentioned above	Point	10			
		Rewiring for light point/fanpoint/ exhaust fan point/call bell					
		point with 1.5 sq.mm FRLS PVC inslated copper conductor					
		cable, single core/ multi strand, as earth wire in existing surface					
		/recessed steel conduit including dismantling as required					
2.01.3			Point	20			
				+ 			
		Supply and Drawing following sizes of FRLS PVC insulated					
		copper conductor , single core Multi stand cable in the existing					
2.01.4		Surface / recessed Steel /PVC conduit as required.					
	i	1x1.5 Sq.mm	Meter	30			
	ii	3x1.5 Sq.mm	Meter	150			
	<u>iii</u>	2x2.5 Sq.mm	Meter	50			
	iv	3x4 Sq.mm	Meter	70			
	V	2x6 Sq.mm	Meter	70	 		
	vi	4x 6 Sq.mm+ 1x6 Sq.mm	Meter	30			
	vi	4x10 Sq.mm+ 1x10 Sq.mm	Meter	50	¦ 		
				 	¦ +		4
		Supply and fixing of following medium class PVC conduit					
		along with accessories in surface /recess inculding cutting the					
2.01.5		wall and making good the same in case of recessed conduit as					
2.01.5		required. 20mm	Meter	175	<u> </u>		
	<u>'</u>	25mm	Meter	100	++		4
				100	<u>+</u> +		<u>.</u>
		Supply and fixing following size / moudular, GI box along			<u>+</u>		
		modular base & cover plates modular switch in recess etc as					
2.01.6		required.					
	i	3 Module	Each	10	••		
	ii	4 Module	Each	5			

		Description.			Rate in Figures	Rate in words	
S.No.			Unit.	Quantity	(in Rs.)	(in Rs.)	Amount in Rs.
1		2	3	4	5	6	7
	iii	6 Module	Each	3			
	iv	8 Module	Each	2	 		
		Wiring for 5A light plugs with 2x1.5 sq.mm. PVC insulated,					
		FRLS copper conductor cable including one number 1.5 sq.mm.					
		PVC insulated, copper conductor cable for earthing in surface/recessed ISI marked MS conduit (including supply and					
		recess laying of ISI marked MS conduit) as per technical					
		specifications and as required.but without switches/socket					
2.02		oulet/boxes	Meter	150	İ		·
		Wiring for 16 amp power plug with 2X4 sqmm PVC insulated,					
		FRLS copper conductor, single core/multi strand cable in					
		surface/recessed MS conduit (including supply and recess laying of MS conduit with all accessories) along with 4 sqmm					
		PVC insulated, copper conductor, single core/multi strand					
		cable for loop earthing etc per technical specifications & as					
2.03		required.but without switches/socket oulet/boxes	meter	150			
				÷	 		i
		Wiring for power plug with 2X6 sq.mm. PVC insulated, FRLS		+ 	<u>+</u>		
		copper conductor multi strand cable in surface/recessed in MS					
		conduit (including supply and recess laying of MS conduit with					
		all accessories) along with 1X6 sqmm PVC insulated FRLS					
		copper conductor for loop earthing, as per technical					
2.04		specifications & as requiredbut without switches/socket	Meter	150			
2.04		oulet/boxes (for Industrial Socket)	IVIELEI	150			
		Wiring for computer Power (Three sockets & one switch) with		 			
		2.5 sq.mm. PVC insulated, FRLS copper conductor cable					
		including one number 2.5 sq.mm. PVC insulated, copper					
		conductor cable for earthing in surface/recessed MS conduit					
		(including supply and recess laying of conduit) as per technical					
2.05		specifications and as required.(3 computer power points	matar	200			
2.05		looped)	meter	200			
		Wiring and drawing following sizes of FRLS copper conductor,		 	<u> </u>		
		single core cable in surface/ recessed steel conduit for Circuit					
		wiring as required including conditiat & Conduit accessories					
2.06		5 1 5 1 1					

		Description.					
S.No.		p	Unit.	Quantity	Rate in Figures (in Rs.)	Rate in words (in Rs.)	Amount in Rs.
1		2	3	4	5	6	7
		2X2.5 Sqmm with 1 No. 2.5 sqmm PVC insulated FRLS copper		 	+		
		conductor for earthing.(DB to switch Board)	Metre	400	 		
				i 	¦ +		
		Wiring for submain with following size of PVC insulated, FRLS					
		copper conductor single core/multi strand cable in recessed					
2.07		steel conduit (including supply & laying of recessed conduit) as					
2.07		required. 4X10 Sqmm with 2 No. 10 sqmm PVC insulated FRLS copper		 	<u> </u>		
	i	conductor for earthing	Metre	50			
		4X16 Sqmm with 2 nos 16 sq mm PVC insulated FRLS copper			<u>++-</u>		
	ii	conductor for earthing.	Metre	30			
		Supplying and fixing suitable Module GI box on surface or in					
		recess including providing and fixing 3 pin 5/6 amps. modular					
		socket outlet with shutters and 5/6 amps. modular type switch					
		with LED indicator type, base plate, modular cover plate, connections etc. and all civil works 'complete as required.					
2.08		connections etc. and an civil works complete as required.	Each	20			
					<u>++-</u>		
†		Supplying and fixing suitable module modular GI box on			<u> </u>		
		surface or in recess including providing and fixing 6 pin 15/16					
		A modular socket outlet with shutters and 15/16 A modular					
		switch with LED indicator, base plate, modular cover plate,					
2.09		connections, etc. and all civil works complete as required.	Each	20	¦ +		
		Sumphing fining connecting testing and commissions of			<u> </u>		
		Supplying, fixing, connecting testing and commissiong of following items modular switch / socket in existing swich					
2.10		board etc. as required.					
	i	6 Amp Switch with LED indicator type	Each	15	<u>++</u> -		
		6 Amps 5 Pin modular socket	Each	15	<u> </u>		
					·		
†		Supplying and fixing suitable module modular GI box on		<u></u>	++-		
		surface or in recess including providing and fixing 6 pin 20 A					
		modular socket outlet with shutters and 20 AMP SP MCB, base					
		plate, modular cover plate, connections, etc. and all civil works					
2.11		complete as required.	Each	15			
			Laon		<u>+</u> +-		

		Description.		 			
S.No.			Unit.	Quantity	Rate in Figures (in Rs.)	Rate in words (in Rs.)	Amount in Rs.
1		2	3	4	5	6	7
2.12		supplying and fixing of 32 amps 440 volts , TPN, Industrial type , socket outlets with metal enclosed plug Topalong with 32 amp "C" series TP MCB in sheet steel enclouser ,on surface or in recess with chained metal cover for socket and complete with connection , testing and commisioning etec.as reqiured.	Each	5			
2.13		Supplying and fixing suitable Module metal box on surface or in recess including providing and fixing three nos 3 pin 5/6 amps. modular socket outlet with shutters and one no. 10 amps. modular type switch, base plate, modular cover plate, connections etc. and all civil works 'complete as required. (For computer Points)	Each	15			
				 	ļ		
2.14		Supplying, providing & fixing cordless musical bell, battries etc of approved make complete as required.	Each	10	 		
		SUBHEAD: 2- WIRING		 			·
		SUB HEAD: 3 - LIGHT FIXTURE AND FANS					
3.00		LIGHT FIXTURES AND FANS (Before procurement, the approval of make ,Model and quantity of light fixtures & Fans is complusory from HSCC/Client)					
3.01		Supply of following light fixture with high efficiency electronic/ dimmable ballast, starter, tubes/lamps, capacitor, reflector, diffuser, MS body/housing holder etc. complete with all fixing accessories as required.					
	i	1XTL-5 28 watt box type flourescent light fixture without reflector(Philips TMS 122M 1XTL5 28 W EBT or approved eguivalent) (136b/136bw)	Each	30			
	ii	2X TL528 watt box type flourescent light fixture without reflector (Philips TMS 122M2XTL528 W EBE or approved	Each	20			
	111	4X TL5 14 watt recess mounted mirror optics flourscent light fixture (Philips TBS 869 4XTL5-14W EBP D8 or approved equivalent).		50			

		Description.		 !			
S.No.			Unit.	Quantity	Rate in Figures (in Rs.)	Rate in words (in Rs.)	Amount in Rs.
1		2	3	4	5	6	7
				<u> </u>	¦ 		
	iv	1X TL5 36 watt surface \ recess mounted mirror optics flourscent light fixture (Philips TCS306 1XTL36 W EBE or approved equivalent).	Each	10			
					\		
	v	2X TL5 36 watt surface \ recess mounted mirror optics flourscent light fixture (Philips TCS306 2XTL36 W EBE or approved equivalent).	Each	10			
3.02		Supply of following compact flourescent light fixture with electronic ballast, starter, capacitor, yellow light lamps, reflector, diffuser, MS body/housing holder etc. complete with all fixing accessories as required.					
	i	1X11 watt Mirror top light with frosted glass (Decon 05CA 01\ Anchor 23527 or approved equivalent)	Each	5			
	iii	Surface down light (Round) Cat number Anchor 92577 or approved Equilvalent	Each	5	······		
	iv	Surface down light (Round) Cat number Anchor 92574 or approved Equilvalent	Each	5	<u> </u>		
3.03		Supply of following ceiling fans (Crompton Greaves High Breeze or approved equivalent) complete with double ball bearing, motor, blades, downrod, canopies, capacitor, modular type 5 STEP electronic fan regulator, suitable for operation on 230 volts, 50 Hz., 1 phase, AC supply complete as required					
	i	1200 mm sweep	Each	5	<u>+</u>		
	ii	1400 mm sweep	Each	5			
3.04		Supply of 1400 RPM, 305 mm (Crompton Greaves Trans Air or approved equivalent) exhaust fan suitable for single phase 230 volts, 50 Hz., AC supply complete with motor, louvers/shutters etc. complete as required.		5			

	Description			······		
S.No.	Description.	Unit.	Quantity	Rate in Figures (in Rs.)	Rate in words (in Rs.)	Amount in Rs.
1	2	3	4	5	6	7
3.06	Installation, testing and commissioning of prewired, flourescent fittings of all types, complete with all accessories and tube etc. directly on ceiling/wall, including connections with 1.5 sq.mm. PVC insulated, FRLS copper conductor, single core/ multi strand cable etc. as required.		120			
3.07	Installation, testing and commissioning of prewired, compact flourescent lamp fixture (CFL fxtures)of all types, complete with all accessories and lamp etc. directly on ceiling/wall, including connections with 1.5 sq.mm. PVC insulated, FRLS copper conductor, single core/ multi strand cable etc. as required.		10			
3.08	Installation, testing and commissioning of ceiling fan and modular type electronic fan regulator(Electronic regulator to be fixed in switch board) including wiring the down rod and connection with 1.5 sqmm FR PVC insulated, copper conductor single core/multi strand cable including providing & fixing phenolic laminated sheet cover on the fan box, etc. as required.		10			
3.09	Installation, testing and commossioning of exhaust fan up to 450 mm sweep in the opening, including making the hole to suit the size of the above fan including , fixing of louvers/ shutters with frame making good the damages etc. as required.		5			
	TOTAL SUB HEAD: 3 - LIGHT FIXTURE AND FANS AS					
	MENTIONED ABOVE					
	SUB HEAD 4 : TELEPHONE SYSTEM					
4.00	TELEPHONE SYSTEM		+ 	<u>+</u> +-		
	Supplying drawing, connecting and testing of 0.5mm dia annealed copper conductor PVC insulated PVC sheathed telephone Wire/cables in Existing M.S/ PVC conduit or a racks as required.					
	i 2 pair Telephone cable. (0.5 sq mm)	Meter	100	<u> </u>		

2 Supply and fixing of following medium class PVC conduit along with accessories in surface / recess inculding cutting the wall and making good the same in case of recessed conduit as required. 20mm Supply, fixing, connecting and testing of telephone modular sockets modular plate anodised MS box and blanking plate in surface / recessed including connectionetc as required. Telephone socket outlet (RJ-11 telephone Jack Single with Shutter) Supplying, Installation, testing and commissioning of following sizes of telephone distribution board in M.S. hinged type lockable box duly painted complete with Krone type tag block	Meter Each	Quantity 4 100 25	Rate in Figures (in Rs.) 5	Rate in words (in Rs.) 6	Amount in Rs. 7
along with accessories in surface /recess inculding cutting the wall and making good the same in case of recessed conduit as required. 20mm Supply, fixing, connecting and testing of telephone modular sockets modular plate anodised MS box and blanking plate in surface / recessed including connectionetc as required. Telephone socket outlet (RJ-11 telephone Jack Single with Shutter) Supplying, Installation, testing and commissioning of following sizes of telephone distribution board in M.S. hinged type lockable box duly painted complete with Krone type tag block	Meter Each	100	5	6	7
along with accessories in surface /recess inculding cutting the wall and making good the same in case of recessed conduit as required. 20mm Supply, fixing, connecting and testing of telephone modular sockets modular plate anodised MS box and blanking plate in surface / recessed including connectionetc as required. Telephone socket outlet (RJ-11 telephone Jack Single with Shutter) Supplying, Installation, testing and commissioning of following sizes of telephone distribution board in M.S. hinged type lockable box duly painted complete with Krone type tag block	Meter Each				
wall and making good the same in case of recessed conduit as required. 20mm Supply, fixing, connecting and testing of telephone modular sockets modular plate anodised MS box and blanking plate in surface / recessed including connectionetc as required. Telephone socket outlet (RJ-11 telephone Jack Single with Shutter) Supplying, Installation, testing and commissioning of following sizes of telephone distribution board in M.S. hinged type lockable box duly painted complete with Krone type tag block	Meter Each				
required. 20mm Supply, fixing, connecting and testing of telephone modular sockets modular plate anodised MS box and blanking plate in surface / recessed including connectionetc as required. Telephone socket outlet (RJ-11 telephone Jack Single with Shutter) Supplying, Installation, testing and commissioning of following sizes of telephone distribution board in M.S. hinged type lockable box duly painted complete with Krone type tag block	Meter Each				
20mm Supply, fixing, connecting and testing of telephone modular sockets modular plate anodised MS box and blanking plate in surface / recessed including connectionetc as required. Telephone socket outlet (RJ-11 telephone Jack Single with Shutter) Supplying, Installation, testing and commissioning of following sizes of telephone distribution board in M.S. hinged type lockable box duly painted complete with Krone type tag block	Each				
Supply, fixing, connecting and testing of telephone modular sockets modular plate anodised MS box and blanking plate in surface / recessed including connectionetc as required. Telephone socket outlet (RJ-11 telephone Jack Single with Shutter) Supplying, Installation, testing and commissioning of following sizes of telephone distribution board in M.S. hinged type lockable box duly painted complete with Krone type tag block	Each				
sockets modular plate anodised MS box and blanking plate in surface / recessed including connectionetc as required. Telephone socket outlet (RJ-11 telephone Jack Single with Shutter) Supplying, Installation, testing and commissioning of following sizes of telephone distribution board in M.S. hinged type lockable box duly painted complete with Krone type tag block	Each	25			
Telephone socket outlet (RJ-11 telephone Jack Single with Shutter) Supplying, Installation, testing and commissioning of following sizes of telephone distribution board in M.S. hinged type lockable box duly painted complete with Krone type tag block	Each	25			
Shutter) Supplying, Installation, testing and commissioning of following sizes of telephone distribution board in M.S. hinged type lockable box duly painted complete with Krone type tag block	Each	25			
Supplying, Installation, testing and commissioning of following sizes of telephone distribution board in M.S. hinged type lockable box duly painted complete with Krone type tag block			+		
sizes of telephone distribution board in M.S. hinged type lockable box duly painted complete with Krone type tag block			1		
etc. including terminations of cable as required.					
20 Pair	Each	2			
Supplying and drawing of following pairs 0.61mm dia annealed bare copper conductor Polythene insulated, core twisted into pairs armoured telephone cable on surface/tray with saddels including termination of cables at both sides in Krone Tag Block etc. complete as required.					
20 Pair	Metre	100	++-		
TOTAL : SUB HEAD 4:TELEPHONE SYSTEM		 			
			++-		
SUBHEAD5-: CONDUITINGFOR COMPUTER SYSTEM .			+		
CONDUITING FOR COMPUTER SYSTEM .					
Supply and fixing of following sizes of rigid PVC conduit heavy					
• • •		 			
<u>+</u>	Metre	100	++-		
	bare copper conductor Polythene insulated, core twisted into pairs armoured telephone cable on surface/tray with saddels including termination of cables at both sides in Krone Tag Block etc. complete as required. 20 Pair TOTAL : SUB HEAD 4:TELEPHONE SYSTEM SUBHEAD5-:CONDUITINGFOR COMPUTER SYSTEM . CONDUITING FOR COMPUTER SYSTEM . Supply and fixing of following sizes of rigid PVC conduit heavy dutyalongwith the accessories in recess including painting in	bare copper conductor Polythene insulated, core twisted into pairs armoured telephone cable on surface/tray with saddels including termination of cables at both sides in Krone Tag Block etc. complete as required. 20 Pair Metre TOTAL : SUB HEAD 4:TELEPHONE SYSTEM SUBHEAD5-:CONDUITINGFOR COMPUTER SYSTEM. CONDUITING FOR COMPUTER SYSTEM. Supply and fixing of following sizes of rigid PVC conduit heavy dutyalongwith the accessories in recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required	bare copper conductor Polythene insulated, core twisted into pairs armoured telephone cable on surface/tray with saddels including termination of cables at both sides in Krone Tag Block etc. complete as required. 20 Pair Metre 100 TOTAL : SUB HEAD 4:TELEPHONE SYSTEM SUBHEAD5-:CONDUITINGFOR COMPUTER SYSTEM. CONDUITING FOR COMPUTER SYSTEM. Supply and fixing of following sizes of rigid PVC conduit heavy dutyalongwith the accessories in recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required	bare copper conductor Polythene insulated, core twisted into pairs armoured telephone cable on surface/tray with saddels including termination of cables at both sides in Krone Tag Block etc. complete as required. 20 Pair TOTAL : SUB HEAD 4:TELEPHONE SYSTEM SUBHEAD5-:CONDUITINGFOR COMPUTER SYSTEM. CONDUITING FOR COMPUTER SYSTEM. Supply and fixing of following sizes of rigid PVC conduit heavy dutyalongwith the accessories in recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required	bare copper conductor Polythene insulated, core twisted into pairs armoured telephone cable on surface/tray with saddels including termination of cables at both sides in Krone Tag Block etc. complete as required. 20 Pair Metre 100 TOTAL : SUB HEAD 4:TELEPHONE SYSTEM SUBHEAD5::CONDUITINGFOR COMPUTER SYSTEM. CONDUITING FOR COMPUTER SYSTEM. SUBHEAD5::CONDUITINGFOR COMPUTER SYSTEM. CONDUITING FOR COMPUTER SYSTEM. Supply and fixing of following sizes of rigid PVC conduit heavy dutyalongwith the accessories in recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required

	Description.					
S.No.		Unit.	Quantity	Rate in Figures (in Rs.)	Rate in words (in Rs.)	Amount in Rs.
1	2	3	4	5	6	7
5.02	Supplying and fixing two module modular plate Inculding RJ- 45 (computer socket) with GI box complete as required.	Each	15			
	Supply and drawing CAT 6 Cable solid anneleaed bare electrolti grade copper conductor PE insulated, poly laminataed AI tape. shielded with fine tinned copper braid and potected with PVC sheath in the existing surface/ recessed / PVC coduit including termination of wires in coputer socket as required.	Metre	150			
	SUBHEAD: 5CONDUITING FOR COMPUTER SYSTEM					
	SUB HEAD 6 : FIRE DETECTION AND ALARM					
6.00	FIRE DETECTION AND ALARM SYSTEM					
6.01	Supply and drawing of sheilded & twisted following sizes of PVC insulated FRLS copper conductor cable in surface/recessed MS conduit (including Supplying and fixing of MS Conduit) complete as required.					
	i 2X1.5 sqmm	Metre	100			/
	TOTAL SUB HEAD 6 : FIRE DETECTION AND ALARM					
	GRAND TOTAL FOR ALL ELECTRICAL WORKS					

Bill of Quantity (BOQ) for for establishment of Local Area Network (LAN) and Wi-Fi for the works Supply, installation, testing & commissioning of Internal furnishing & related minor Civil, Plumbing, Electrical, LAN, WI-FI works etc for DHR at 2nd Floor of Red Cross Building , New Delhi

Work to be executed as per Technical Specification, drawings, tender's terms and conditions etc.

Sr. no.	Item Description	Quantity	Unit	Rate in figure(in Indian Rupees Rs.)	Rate in words(in Indian Rupees)	Amount (in Indian Rupees -Rs.)
1	2 Supply, Installation, Testing and Commissioning of the following items as per requirement and as directed to the satisfaction of the engineer and complete in all respect	3	4	5	6	7
		1				
Active Devices	S S					
1.0	Layer 3 Switch (Make - HP/Cisco/Juniper/Brocade)					
1.1	Supply, installation, testing and commissioning of Layer 3 Switch, 24 RJ-45 autosensing 10/100/1000 ports; 4 dual-personality ports; autosensing 10/100/1000BASE-T or SFP; 2 port expansion module slots; 1 RJ-45 serial console port with all the accessories etc. as per the technical specificaton mentioned and as per the requirement and as directed to the satisfaction of engineer and complete in all respect	1	No			
2.0	Layer 2 Switch (Make - HP/Cisco/Juniper/Brocade)					
2.1	Supply, installation, testing and commissioning of Layer 2 Switch, 24 10/100/1000 MBPS with 4 SFP Combo SFP Ports with Power cord and all accessories etc. with latest Software as per the technical specificaton mentioned as per the requirement and as directed to the satisfaction of engineer and complete in all respect	3	No			
2.2	Supply, installation, testing and commissioning of 1 G SFP, LC connector SX Transceiver with Power cord and all accessories etc. with latest Software as per the requirement and as directed to the satisfaction of engineer and complete in all respect	4	No			
3.0	Wireless Solution (HP/Cisco/Juniper/Brocade)					
3.1	Supply, installation, testing and commissioning of Wireless Access Point with all the accessories etc. as per the technical specification and as per requirement and as directed to the satisfaction of engineer and complete in all respect	5	No			
4.0	Firewall(Make - Cyberoam/Cisco/Juniper/Fortinet)					
4.1	Supply, installation, testing and commissioning of Appliance based Firewall with internal/external IPS/IDS with 3 years subscrption includes Anti Malware, Anti Spam, Web Application Filter, Intrusion Prevention System and 24 x 7 Support as per technical specification mentioned as per the requirement and as directed to the satisfaction of engineer and complete in all respect	1	No			
Passive Devi	ces					
5.0	UTP Components (Make - Molex/Systimax/R&M/AMP/Panduit)					
5.1	Supply, laying, testing and commissioning of Cat 6, PowerCat Plus, UTP Cable, 4 pair, 305 mtrs, Blue (23 AWG, Reel in a Box packing) as per the requirement and as directed to the satisfaction of engineer	12	No			
5.2	Supply, installation, testing and commissioning of 24 Ports Patch Panel as per the requirement and as directed to the satisfaction of engineer	3	No			
5.3	Supply, installation, testing and commissioning of Cat 6 Patch Cords-4 Feet as per the requirement and as directed to the satisfaction of engineer	65	No			

Bill of Quantity (BOQ) for for establishment of Local Area Network (LAN) and Wi-Fi for the works Supply, installation, testing & commissioning of Internal furnishing & related minor Civil, Plumbing, Electrical, LAN, WI-FI works etc for DHR at 2nd Floor of Red Cross Building , New Delhi

Work to be executed as per Technical Specification, drawings, tender's terms and conditions etc.

				Rate in figure(in Indian		
Sr. no. 1	Item Description	Quantity 3	Unit 4	Rupees Rs.) 5	Rate in words(in Indian Rupees) 6	Amount (in Indian Rupees -Rs.)
	Supply, Installation, Testing and Commissioning of the following items as per requirement and as directed to the satisfaction of the engineer and complete in all respect	5	-			
5.4	Supply, installation, testing and commissioning of Cat 6 Patch Cords-7 Feet as per the requirement and as directed to the satisfaction of engineer	65	No			
5.5	Supply, installation, testing and commissioning of Cat 6 UTP I/O with Strain relief and bend limiting boot mtrs as per the requirement and as directed to the satisfaction of engineer	65	No			
	Supply, installation, testing and commissioning of 2-Port Shuttered Face Plate with Surface mount Box as per the requirement and as directed to the satisfaction of engineer					
5.6		65	No			
5.7	Supply, laying, testing and commissioning of Conduit/PVC Channel (ISI mark) as per the requirement and as directed to the satisfaction of engineer	1450	Meter			
6.0	Opitcal Fiber Cable Components (Make - Molex/Systimax/R&M/AMP/P	anduit)				
6.1	Supply, installation, testing and commissioning of 12 port LIU Rack Mount as per the requirement and as directed to the satisfaction of engineer	2	No			
6.2	Supply, installation, testing and commissioning of SC Pigtails Multimode as per the requirement and as directed to the satisfaction of engineer	12	No			
6.3	Supply, installation, testing and commissioning of SC Adapter MM as per the requirement and as directed to the satisfaction of engineer	12	No			
6.4	Supply, installation, testing and commissioning of 6XSC unloaded Adapterplate , requirement and as directed to the satisfaction of engineer	2	No			
6.5	Supply, laying, testing and commissioning of Fiber Patch Cord LC-SC MM DUPLEX LENGTH -1 Meter requirement and as directed to the satisfaction of engineer	2	No			
6.6	Supply, installation, testing and commissioning of Blank Plate as per the requirement and as directed to the satisfaction of engineer	2	No			
6.7	Supply, laying, testing and commissioning of OFC 6 core Outside plant Cable- Corrugated Steel tape Armored, Loose-tube, Gel-Filled, 50/125 micron MM Mode as per the requirement and as directed to the satisfaction of engineer	200	Meter			
7.0	Equipment Racks (Make - Valvrack/APW)					

Bill of Quantity (BOQ) for for establishment of Local Area Network (LAN) and Wi-Fi for the works Supply, installation, testing & commissioning of Internal furnishing & related minor Civil, Plumbing, Electrical, LAN, WI-FI works etc for DHR at 2nd Floor of Red Cross Building , New Delhi

Work to be executed as per Technical Specification, drawings, tender's terms and conditions etc.

Sr. no.	Item Description 2 Supply, Installation, Testing and Commissioning of the following items as per requirement and as directed to the satisfaction of the engineer and complete in all respect	Quantity 3	Unit 4	Rate in figure(in Indian Rupees Rs.) 5	Rate in words(in Indian Rupees) 6	Amount (in Indian Rupees -Rs.) 7
7.1	Supply, installation, testing and Commissioning of 42 U Floor Mounting Rack (800mm W/1000mmD) with Proforated Steel Back Door & Front Glass Door with Lock. (Black Color) Rack Accessories: Castors/Wheels (set of 4), Fan Housing Unit with 4 Fans, 19" Stationary Shelf 700mm(D) (1 no.), 5-Point AC Distribution Box 5/15 Amps(2 nos.), Mouting Hardware - Pack of 10 (10 nos), Earthing Kit (1 no.) with all standard accessories that include Cable Manager, Power Bar with sockets etc. as per the requirement and as directed to the satisfaction of engineer	1	No			
7.2	Supply, installation, testing and Commissioning of 9U Wall Mounting Rack with all standard accessories that include Cable Manager, Power Bar with sockets, Fan etc. as per the requirement and as directed to the satisfaction of engineer	1	No			
8.0	2 KVA Online UPS (make - Emerson/APC/Eaton Powerware)					
8.1	Supply, Installation, Testing and Commissioning of 2 KVA true online UPS with One (1) hour battery backup on full load with all SMF batteries, all the accessories, Rack etc., all necessary arrangments to be made for providing UPS supply to all Switches, Rack, Wireless Access Points etc. (laying of power cable, power socket etc.), complete in all respect as per the requirements and as directed to the satisfaction of engineer	1	No			