

TABLE - 1

**MAXIMUM CAPACITY OF CONDUITS FOR DRAWING OF
PVC INSULATED 650/1100V GRADE CABLES**

Sl. No.	Nominal area of conductor in sq.mm.	Approximate overall Diameter of cable sq.mm.	Size of conduits				
			20 mm	25mm	32mm	40mm	50mm
1	1.0	2.8	5	11	13	-	-
2	1.5	3.1	4	9	10	-	-
3	2.5	3.8	3	6	8	-	-
4	4	4.4	-	4	5	5	-
5	6	5.3	-	3	4	5	-
6	10	6.8	-	2	3	3	-
7	16	8.2	-	-	-	3	5
8	25	10.0	-	-	-	2	5
9	35	11.2	-	-	-	-	3
10	50	13.5	-	-	-	-	2

The table applies to all types of conduits irrespective of whether they are light gauge or heavy gauge.



GENERAL SUMMARYNOTE :

Rates to include any incidental expenses incurred on account of dismantling, handling, temporary stacking / storing and removal of existing partitions, grilles, furniture/electrical items etc. necessary for the work.

SECTION NO.	DESCRIPTION	FOLIO NO.	AMOUNT Rs.	AMOUNT Rs.
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I	INTERIOR WORK	SCH-INT/5		
II	FURNITURE WORK	SCH-FUR/2		
III	ELECTRICAL WORK	SCH-E/1		

TOTAL :



SECTION - I
INTERIOR WORK

SL. NO.	ITEM DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
1	<p>Providing and fixing in position gypboard false ceiling in two levels as per design, with 12 mm thick gypsum board, including necessary framework of galvanized steel members, complete with recommended fillers, paper tapes and two coats of acrylic emulsion painting of approved shade and brand over two coats of primer of approved quality.</p> <p>Rates to include cost of making openings for ceiling mounted electrical/ air-conditioning accessories as per Instructions. Frame work to be used in the work should be "Gypsteel" with hologram.</p> <p>(The work is to be carried out through authorized applicators of M/s.(SAINT-GOBAIN) Gyproc.)</p>	Sqm.	62.00		
2	<p>Supplying & fixing of approved mineral fibre false ceiling system on 15mm flange stitched suspension Silhouette black reveal grid system having maintee 3000 mm. long X 42 mm. web height X 15mm wide tee sections. The Main Runner is to be fixed with 2mm thick pre-stretched G.I. wire with soffit cleat & G.I. Rawl Plug Inserted on the main roof to be fixed at 1200mm C/C. The last hanger at the end of each main runner should not be greater than 450mm from the adjacent wall. The Main Runner will be at the distance of 1200mm C/C. The flush fitting 1200mm X 42mm X 15mm wide Cross Tee sections, with precision stub end is to be click fit in between the Main tee at a distance of 600mm to make a module of 1200mm X 600mm. Another cross tee with precision stub end of size 600mm X 42mm X 15mm is to be click fitted at 1200mm sections parallel to Main tee at 600mm centre to make a square grid of 600mm X 600mm.</p> <p>All base frame material clip end should be made of cold rolled steel components & coated with hot dip galvanized steel. It should have a capping of material coated with baked polyester paint. The perimeter trim (shadow moulding) of dimension 3000 mm X 19mm X 7mm X 14mm, white colour secured at 450mm C/C. Silhouette main runners and cross tee to have mitred ends and "birdsmouth" notches to provide mitred cruciform junctions.</p> <p>Prima Dune Premier 99 of M/s. Armstrong or similar equivalent, pre-painted microlock edged tiles 15mm thick suitable for 600mm X 600mm grid to be placed on grid. Tiles should have NRC of 0.50, having light reflection of 85% and thermal conductivity K-0.052-0.057 W/M degrees centigrade and weight of 3.90 kg/sq.m. The Fire rating of tile should be class 0 for fire propagation & Class 1 for spread of flames as per BS-476, & having humidity resistance of For A.C. Grills & Light fixtures, additional members if required is to be provided into the grid system. The work has to be done as per the direction & supervision of Architect/Manufacturer's representative.</p>	Sqm.	17.00		
3	<p>Providing and fixing 125 mm. wide and 12 mm. thick BWR grade plyboard to be fixed on the wall at the junction of horizontal and vertical surface, the plyboard to be finished at the top upto 75 mm. depth with blue laminate sheet and remaining portion with red laminate sheet of approved quality. Free edges of plyboard are to be provided with polished 8 mm. thick wood lipping, all</p>	Mtr.	40.00		

CARRIED OVER :



SL. NO.	ITEM DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
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BROUGHT FORWARD :

- 4 Supplying and erecting full height opaque partitions (upto 3000 mm. high) as per drawing and conforming to the following specifications :

basic frame work :

well seasoned Malaysian sal wood sections, treated with two coats of wood preservatives, 60 mm wide x 40 mm (minimum) at maximum 600mm horizontal or vertical spacings as per site conditions. Vertical members shall be suitably extended upto, anchored and cross-tied at ceiling level.

skin membrane :

Single layer 6 mm thick MR grade plyboard on each face as per drawing/instructions.

finishing :

One side finished with 1 mm thick laminate sheet of same or combination shades as per instruction and other side finished with two coats of synthetic enamel paint of approved shade and quality over a coat of approved primer on single layer MR grade plyboard.

Quoted rates shall include all necessary materials, accessories and labour and also allow provisions for electrical/telephone/computer wiring conduits and switch boxes, etc (Materials for wiring conduits and switch boxes shall be separately paid for.)

Sqm. 42.00

- 5 Supplying and erecting full height partly glazed partitions (upto 3000 mm. high) as per drawing and conforming to the following specifications:

basic frame work :

Well seasoned Malaysian sal wood sections, treated with two coats of wood preservatives, 60 mm wide x 40 mm (minimum) at maximum 600mm horizontal or vertical spacings as per site conditions. Vertical members shall suitably with extended upto, anchored and cross-tied at ceiling level.

Exposed frame members in the glazed portions shall have wider spacings (max. 1800 mm.clear) as per instructions.

skin membrane :

Opaque portion at top and bottom and exposed frame members in the glazed portions shall have single layer 6 mm. thick MR grade plyboard on each face, as per drawing/instructions.

finishing :

1 mm thick laminate sheet of same or combination shades as per instructions

glazing :

6 mm. thick clear float glass fixed with continuous teak wood glazing beads of approved shape (from 35 x 25 mm) all round, polished and coated with melamine lacquer finish.

Quoted rates shall include all necessary materials, accessories and labour and also allow provisions for electrical/telephone/computer wiring conduits and switch boxes, etc (Materials for wiring conduits and switch boxes shall be separately paid for.)

Sqm. 40.00

CARRIED OVER :



SL. NO.	ITEM DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
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BROUGHT FORWARD :

- 6 Supplying and erecting low height opaque partitions (upto max. 1200 mm. high) as per drawing and conforming to the following specifications:

basic frame work :

well seasoned Malaysian sal wood sections, treated with two coats of wood preservatives, 60 mm wide x 40 mm (minimum) at maximum 600 mm horizontal or vertical spacings as per site conditions.

skin membrane :

Single layer 6 mm thick MR grade plyboard on each face, as per drawing/instructions.

finishing :

1 mm thick laminate sheet of same or combination shades as per instructions.

edge moulds :

All free top/end surfaces shall have polished teak wood moulds of approved shape of size 80 mm x 20 mm with melamine lacquer in mat satin finish.

Quoted rates shall include all necessary materials, accessories and labour and also allow provisions for electrical/telephone/computer wiring conduits and switch boxes, etc (Materials for wiring conduits and switch boxes shall be separately paid for.)

Sqm. 6.00

- 7 Supplying and erecting wall/column panelling/single skin full height opaque partitions as per drawing and conforming to the following specifications :

Framework of aluminium sections (minimum 50 x 25 mm.) at horizontal and vertical spacings not exceeding 600 mm. c/c. Aluminium sections shall be suitable treated with appropriate wood preservatives.

Single layer 6 mm thick MR grade plyboard as per drawing/instructions.

1 mm thick laminate sheet of same or combination shades as per instructions

Quoted rates shall include all necessary materials, accessories and labour and also allow provisions for electrical/telephone/computer wiring conduits and switch boxes, etc (Materials for wiring conduits and switch boxes shall be separately paid for).

Sqm. 5.00

- 8 Providing and fixing 12 mm thick clear float glass, machine polished along all free edges.

Sqm. 2.00

- 9 Providing and erecting in position, Cash Workstation comprising of the basic workstation and a side - top unit conforming to relevant drawings and following specifications:

Basic workstation

Approximate overall size 1500mm. long, 850 mm. wide and 750 mm. high. The workstation shall include a customer - top of approx. overall size 1500 mm. long, 300 mm. wide and 1050 mm. high (finished size)

The workstation shall be made of 19 mm thick, BWR grade blockboards, suitably supported on the peripheral partition system.

The workstation shall also include a cash - drawer unit of approx. overall size 400 mm. wide, 500 mm. deep and 725 mm. high comprising of one tea - tray and three cash drawers of equal depth. It shall be made of 19mm. thick BWR grade blockboards and 12 mm. thick BWR grade plywoods for drawers.

The customer side of the drawer unit shall be protected with a lining of 14G MS sheet over the entire area. The metal surfaces shall be finished with two coats of synthetic enamel paint over a coat of approved primer.

The customer - top shall be made of 19 mm. thick BWR grade blockboards with the writing surface finished with mirror polished granite slab of approved shade and quality (single piece upto 1500 mm. length and 300 mm. wide) fixed with approved chemical adhesive. The work shall also include necessary edge mouldings of the stone in approved profile.

CARRIED OVER :

SL. NO.	ITEM DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
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BROUGHT FORWARD :

9 Contd.,

A box - band of 'U' profile made of 19 mm. thick BWR grade blockboards of approx. overall size 1500 mm. long, 300 mm. wide and max. 650 mm high shall be erected at height of approx. 1050 mm, above the customer top level. The box- band shall be supported on the peripheral partition system and shall be finished with 1 mm. thick laminate sheet of approved shade over an additional layer of minimum 5.5 mm. thick MDF board in grooved pattern.

The vertical gap between the customer - top and the box - band (approx. 1050 mm.) shall have 12 mm clear float glazing in two pieces (1 No. 1500 mm. x 300 mm. and 1 No. 1500 mm. x 550 mm. approx.) as per drawing / instructions. Glass edges shall have machine polished finish. Fixing arrangements of glazings shall be with SS glazing cleats and supporting angles of approved quality at both ends.

All blockboard surfaces shall be finished with 1 mm. thick laminate sheet of approved shade or combination of shades as per instructions. Inner faces of workstation including cabinets and drawers shall have polished finish. Blockboard edges shall have polished lippings of approved quality wood. Lamination of the apron part shall be on an additional layer of 4 mm. thick BWR grade plywood laid in grooved pattern.

Basic slide - top unit

Approx. overall size 1200 mm. long, 400 mm. deep and 725 mm. high. The slide - top shall also include a drawer unit of approx. overall size 400 mm. wide, 400 mm deep and 700 mm. high comprising of one ordinary drawer (approx. 100 mm. clear height) and one shuttered cabinet below.

The slide - top unit shall be made of 19 mm thick BWR grade blockboards and 12 mm. thick BWR grade plywood for drawers. It shall be suitably supported from the peripheral partition system and the workstation structure.

All blockboard surfaces shall be finished with 1 mm thick laminate sheet of approved shade or combination of shades as per instructions. Inner faces of workstation including cabinets and drawers shall have polished finish. Blockboard edges shall have polished lippings of approved quality wood.

Accessories

accessories:

Readymade metal keyboard drawer (INNOFIT/ IS KD 510 M or similar approved)

Readymade CPU Trolley (INNOFIT/ IS CPU TR)

Approved quality drawer slides (25 kg) (EGL / GLYDO)

Approved quality concealed type auto - closing shutter hinges

Approved quality shutter / drawer locks with keys in duplicate.

Approved quality SS cabinet / drawer handles in matt satin finish.

Approved quality wire managers (plastic).

Rates to include all necessary allied works. Partition system shall be separately paid for.

Mr. 3.00

- 10 Supplying and fixing in position well seasoned teak wood scantling to door frame as directed and specified. Exposed surfaces are to be polished in approved colour and finished with melamine lacquer in mat satin finish.

Cum. 0.04

- 11 Supplying and fixing in position 37 mm thick partly glazed door shutter made of 15 mm thick well seasoned second class teak wood planks with double layer (6 mm + 4 mm thick) commercial plywood finished with 1.00 mm thick laminate sheet (without joints) of approved quality on both sides of the door shutter upto 900 mm from floor level. The upper portion of the shutter is to be provided with 6 mm thick clear float glass fixed with polished steam beech wood glazing beads of approved design, complete as per drawing. Rate to include cost of hardware fittings e.g. mortice locks, brass hinges etc. of approved make and quality.

Sqm. 4.00

CARRIED OVER :



SL. NO.	ITEM DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
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BROUGHT FORWARD :

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|----|---|------|-------|--|--|
| 12 | Supplying and fixing in position overall 32 mm thick solid core hot pressed phenol formaldehyde bonded approved flush door shutter finished with 1.0 mm thick laminate sheet (without joints) of approved shade and quality on both sides of the door shutter including cost of hardware fittings e.g. brass hinges, Mortice lock sets with handles etc. of approved make and quality. | Sqm. | 13.00 | | |
| 13 | Providing and fixing slim - stile door made of 50 mm thick well seasoned first class teak wood of special design for stiles and rails, with 8 mm thick clear float glass, necessary hardware fixtures of approved make and design, viz., brass flush bolt, stainless steel decorative tubular handle (Dorset or equivalent approx. 600 mm long) on both faces, including floor spring complete as per instructions. Wooden surfaces shall be polished in approved shade melamine lacquer in mat satin finish. | Sqm. | 2.20 | | |
| 14 | Providing and fixing etching films (frosted) of approved quality on glass surfaces of approved graphical design in patterns of strips as directed. | Sqm. | 25.00 | | |

TOTAL CARRIED TO GENERAL SUMMARY :

SCH-INT/5



SECTION - II
FURNITURE WORK

SL. NO.	ITEM DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
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1. Providing and erecting in position, free - standing table as per drawing and conforming to the following specifications :
basic structure of 19 mm thick BWR grade block board for sides, top and modesty panel, finished with 1.00 mm thick laminate sheet of approved shade and make including inner faces. The laminate on the front face of modesty panel shall be on an additional single layer of 4 mm BWR plyboard forming 4 x 4 mm groove pattern.

drawer-cum-cabinet unit of approximate overall size of 400 x 500 x 725 mm (w x d x h) of 19 mm thick BWR grade block board and 12/6 mm thick BWR grade plywood. The drawer unit shall comprise of one readymade drawer manager of engineering plastic (DM BG 1416/ INNOFITT SYSTEMS or similar) with laminated block board facia, one ordinary drawer and one cabinet with inner faces polished in approved shade. The drawer unit shall be finished with 1.00 mm thick laminate sheet of approved shade including inner faces of cabinet shutters.

Readymade keyboard drawer of engineering plastic (KD 575. P.MT / INNOFITT SYSTEMS or similar) and all necessary accessories, suitably suspended below table top;

Readymade CPU holder with swivel facility (CPU HL SW / INNOFITT SYSTEMS or similar)

Quoted rates shall also include cost of polished teak wood moulding (finished 40x20 mm and 20 x 20 mm sections) to edges; polished teak wood lipping (6mm thick) to free edges of block board /plywood surfaces; approved drawer slides, concealed type auto - closing shutter hinges and locks with keys in duplicate; other necessary hardware and accessories including satin finish S.S handles and plastic wire - managers etc. of approved quality.

- i) Approx. size 1800 x 900 x 750 mm
ii) Approx. size 1500 x 750 x 750 mm

Each 1
Each 2

2. Supplying and erecting in position running tables of approx. overall size 750 mm. deep and 750 mm. high conforming to the following specifications :
Basic structure of 19 mm. thick BWR grade blockboard with one drawer unit per each length of maximum 1200 mm. The drawer unit shall comprise of one tea - tray, one ordinary drawer(approx. 125 mm. high) and one cabinet below.

Blockboard surfaces shall be finished with 1 mm. thick laminate of approved shade. Inner faces of tables, cabinets and drawers shall be polish finished. Free blockboard/plywood edges shall have polished approved quality wood lippings.

The work shall also include the following accessories :

Readymade metal keyboard drawer (INNOFITT / IS KD 510 M or similar)

Readymade CPU Trolley (INNOFITT / IS CPU TR)

Approved quality drawer slides (25 kg) (EGL / GLYDO)

Approved quality concealed type auto - closing shutter hinges

Approved quality shutter / drawer locks with keys in duplicate.

Approved quality SS cabinet / drawer handles in matt satin finish.

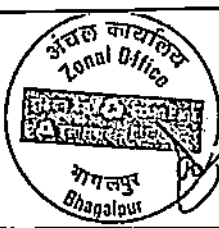
Approved quality wire managers (plastic).

Mtr. 2.00

3. Providing free standing Daptari table of approx. overall size 900 mm x 600 mm x 750 mm high, made of well seasoned malaysian sal wood support of 50 mm x 50 mm and 19 mm. thick block board on top finished with 1.0 mm thick laminate sheet of approved shade and quality. The exposed edges of block board shall be provided with 6 mm. thick teak wood lipping. All the exposed timber surfaces are to be polished in approved colour.

Each 1

CARRIED OVER :



SL. NO.	ITEM DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
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BROUGHT FORWARD :

- 4 Providing and erecting in position side / back cabinet units with sliding shutters of approx. size of 450 mm deep x 725 mm high made of 19mm thick BWR grade blockboards including intermediate shelves as per drawing /instructions. The rear faces shall be of 6 mm thick BWR grade plyboard. Exposed blockboard surfaces shall be finished with 1.00 mm laminate sheet of approved shade and make . Inner faces shall be polished in approved shade.
Free edges of blockboard shall have polished approved quality wood lipping.
Quoted rates shall include cost of necessary hardware, viz., SS flush handles, locks with keys in duplicate and approved sliding channels etc. Mtr. 4.00
- 5 Supplying and fixing free-standing customer writing ledge/suggestions box/Cheque drop box/writing ledge of overall size 450 mm long x 300 mm deep x 900 mm high made of 19 mm thick phenol formaldehyde block board, all as in drawing, complete with hardware fittings and fixtures of old materials of existing Branch.
On top 18 mm thick single piece granite of approved shade and quality including moulding piece, all complete as in drawing.
All exposed surfaces of block board are to be finished with 1mm thick laminate sheet of approved shade and quality. Inner faces of block board surfaces are to be finished with minimum two coats of synthetic enamel paint of approved shade and quality over a coat of approved primer. Each 1
- 6 Providing and fixing in position notice board as per drawing and conforming to the following specifications
basic frame work :
well seasoned Malayanian sal wood sections, treated with two coats of wood preservatives, minimum 50 x 25 mm, at suitable horizontal / vertical spacings not exceeding 600 mm c/c.
skin membrane :
1 x 4 mm. thick BWR grade plywood over which 12 mm thick approved quality soft board clad with fabric of approved shade and quality.
edge moulding :
All free edges shall have polished 2nd class teak wood moulds of approved shape (finished 50 x 25 mm sections) with melamine lacquer in mat finish. Sqm 2.00

TOTAL CARRIED TO GENERAL SUMMARY :

SCH-FUR/2



ELECTRICAL SUMMARY OF COST**IMPORTANT NOTE:**

- i) Megger test of the newly installed electrical system shall be mandatory.
- ii) Bidders shall make themselves familiar with actual site conditions before submitting their rates.
- iii) The successful bidder assigned to execute the work shall make necessary arrangements to dismantle the existing wiring system, electrical fittings, A.C. wirings, UPS & LAN in a phased manner and also temporarily re- install the same to facilitate normal functioning of the Branch/Office according to actual site conditions. The quoted rates shall have to be accordingly worked out by the bidders and no separate claims on these accounts shall be entertained.
- iv) During the execution period, the contractors shall ensure presence of a competent electrician in order to maintain normal office activities.

SECTION NO.	DESCRIPTION	FOLIO NO.	AMOUNT Rs.
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A	DB'S, CABLING AND WIRING WORK	SCH-E/6	
B	SUPPLY OF LIGHT FITTINGS & FANS	SCH-E/7	
C	COMPUTER POWER WIRING	SCH-E/9	

TOTAL CARRIED TO GENERAL SUMMARY :

SCH-E/1



A. DB's, CABLING AND WIRING WORK

SL. NO.	ITEM DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
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1.1 MAIN SWITCH

Supply and fixing of Switch Fuse Unit (SFU) with HRC fuse in sheet steel enclosure on M.S. angle frame / M.S. legs on wall complete with interconnection, mending good damages to original finish, painting, etc. as required.

- i) 100 A TPN SFU with HRC fuses.
ii) 63 A TPN SFU with HRC fuses.

Each. 1
Each. 1

1.2 CHANGE OVER SWITCH (COS)

Supply, installation, testing and commissioning of 63A 4P On load front operated change over switch in sheet steel enclosure on M.S legs on wall complete with interconnection, mending good damages to original finish, painting etc. as required.

Each 1

1.3 MCB DISTRIBUTION BOARD

Supply, installation, testing and commissioning of following MCB Distribution Board in sheet steel enclosure with double door and suitable for mounting on wall by chase cutting and flushed with finished level to the position shown in the Electrical Layout complete in all respect, mending good all damages to the original finish, painting, interconnection, etc. as required. Short circuit I.C. of all MCBs should be 10 KA (minimum) and RCBO should have earth leakage, overload and short circuit protection. Name plate of DB's to be fixed / written on front door alongwith switch board numbers / DB's at the outgoing.

a) MAIN DISTRIBUTION BOARD (MDB)

TPN 6 way vertical type MCB DB complete with busbar and the following MCBs :

Incoming

1 no. : 63A 4P MCB Iso.

Outgoing :

1 no. : 415V, 32A TP, MCB

6 nos. : 240V, 20-25A SP MCB

3 nos. : 240V, 16A SP MCB

Complete board as above

Each. 1

b) Lighting Distribution Board (LDB)

TPN 4 way vertical type MCB DB complete with busbar and the following MCBs :

Incoming

1 no. : 40A FP MCB

CARRIED OVER :



SL. NO.	ITEM DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
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BROUGHT FORWARD :

b) Contd...

Outgoing :

3 Nos. : 25A TP MCB
2X32A DPMCB

Complete board as above

Each. 1

c) 12 way Horizontal type SPN DB

Incoming :

1 No. 32 A DB MCB (20 KA)

Outgoing :

10x6/10a SPMCB

Each 1

d) MCB FOR GLOW SIGN BOARD

Supply and fixing of 20A SPN MCB & 20A timer with 40A DP contractor suitable enclosure on wall for enclosure on wall for Glow Sign board connection.

Each. 1

1.4 DISTRIBUTION CABLE :a) SUPPLYING OF CABLE :

Supplying of 1.1 KV grade following PVC insulated and PVC sheathed armoured aluminium conductor cables conforming of IS:1554 (Part-I) :

- i) 3.5 core 35 Sq.mm.
ii) 4 core 16 Sq.mm.

Mtr. 45.00
Mtr. 50.00

b) LAYING OF CABLE

Laying of above cable from metre to MDB on wall/column/as per side condition including supply and fixing of M.S. clamps/galvanised bar saddles @ 300 mm apart, making holes and mending good damages or partly through pre-laid pipe.

- i) 3.5 core 35 Sq.mm.
ii) 4 core 16 Sq.mm.

Mtr. 45.00
Mtr. 50.00

c) CABLE GLAND AND FINISHING THE END

Supplying and fixing of compression type brass cable gland alongwith rubber rings for dust and moisture proof entry of following 1.1 KV grade aluminium conductor PVC insulated and PVC sheathed armoured cable and finishing the end by crimping method including supply and fixing of "Dowell" make solderless socket, tapes and jointing materials as required to be completed in all respect.

- i) 3.5 core 35 Sq.mm.
ii) 4 core 16 Sq.mm.

Set 2
Set 6

CARRIED OVER :



SL. NO.	ITEM DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
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BROUGHT FORWARD :

1.5 SUBMAIN WIRING

Submain wiring with following sizes 1100 V grade, single core, PVC insulated flexible FRLS copper conductor wire (IS:694) through suitable size PVC. conduit (ISI marked embossed on conduit surface)/ flexible PVC conduit complete with junction box, circular box, elbows, bends and other accessories on surface above false ceiling or concealed by chase cutting on wall/in wooden furnitures, as per site condition, mending good all damages to original finish, interconnection, painting etc. as required to be completed in all respect. All connections of wires to be done by means of 'Wago' type connectors:

- i) With 2 Nos. 6 Sq. mm + 1 No. 2.5 Sq. mm (green colour for earth) PVC Insulated Copper wire.(For Glow Sign Board) Mic. 100.00

1.6 AC POINT WIRING (UPTO 2.0 TON)

- i) A.C. power point wiring from Main DB to A.C. Power points with 1100 volt grade following rating (Green colour for earthing) PVC Insulated flexible FR copper conductor cable through suitable size PVC conduit (ISI marked embossed on conduit surface) complete with junction box, circular box, elbows, bends, couplers and other accessories surfaced on wall above false ceiling or concealed by chase cutting on brick / wooden wall. The work includes supply & fixing by chase cutting on wall, 'North-West' make A.C. power unit having suitable rating socket with plug, plug-top & starter in sheet steel enclosure complete with interconnection, mending good all damages to original finish, painting etc. as required. All connections of wires to be done by means of 'Wago' type connectors.

With 2 nos. 4 sq.mm. + 1 no. 2.5 sq.mm. (green colour for earth) PVC Insulated copper wire in 25 mm dia PVC conduit / casing cabling. (for AC unit)

Each. 4

1.7 6/16A SOCKET OUTLET POINT WIRING

Power point wiring for 6 pin 6/16 A shuttered socket outlet wiring with controlling switch from DB with 1100 volt grade 2 Nos. single core 2.5 sq.mm. + 1 No. 1.5 sq.mm. (Green colour for earthing) PVC insulated flexible FRLS copper conductor wire (IS:694) through suitable size PVC. conduit (ISI marked embossed on conduit surface) complete with junction box, circular box, elbows, bends, couplers and other accessories on surface above false ceiling or concealed by chase cutting on wall. The work includes supply & fixing of modular type 6/16A 6 pin shuttered socket outlet with controlling switch, suitable size mounting box and front plate for socket outlet flushed with finished wall, mending good all damages to original finish, interconnection, painting, etc. as required to be completed in all respect. All connections of wires to be done by means of 'Wago' type connectors.

Each 3

CARRIED OVER :

SCH-E/4



SL. NO.	ITEM DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
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BROUGHT FORWARD :

1.8 POINT WIRING

Point wiring with 1100 V grade 3 nos. single core 1.5 sq.mm. (1 for phase, 1 (black colour) for common neutral by looping method and 1 (green colour) for common earth by looping method) PVC insulated flexible FRLS copper conductor cable (IS:694) through suitable size PVC. conduit (ISI marked embossed on conduit surface) complete with junction box, circular box, elbows, bends, couplers and other accessories on surface above false ceiling or concealed by chase cutting on wall from light & fan switch board to light, fan & 6A socket outlet on the same switch board or separately mounted switch board. The work includes supply and fixing of all materials such as modular type 6A switch for each light and fan point, 6A 2/3 pin shuttered socket outlet with switch, 3 plate ceiling rose / angle or batten holder etc. as required.

The point wiring also includes circuit wiring with 1100 V grade 2 nos. single core 2.5 sq.mm. (1 for phase and 1 (Black colour) for neutral) + 1 no. single core 1.5 sq.mm. (Green colour for earth) PVC insulated flexible (FRLS) copper conductor cable (IS:694) through suitable size PVC. conduit as described above from DB to switch board, interconnection, mending good all damages to original finish, painting etc. as required to be completed in all respect. All connections of wires to be done by means of "Wago" type connectors. (All wiring in strong room, locker room, records & stationery room will be of surface conduit type).

i)	1 light control by 1 switch.	Each	20
ii)	2 light control by 1 switch.	Each	6
iii)	Wall Bracket fan point with 2/3 pin socket to be installed at fan height and switch at the switch board	Each.	11
iv)	Exhaust fan point	Each	4
v)	Call bell point with bell push	Each	1
vi)	Red light & Incandescent light point	Each	1
vii)	1x6A 2/3 pin shuttered socket with switch on separate switch board other than light / fan switch board	Each	11
viii)	2/3 pin 6A switch shuttered socket outlet with switch on light and fan switch board.	Each	7
ix)	Ceiling fan point with supply and fixing of 2 module step Regulator 280 W min	Each.	1
x)	UPS power point	Each	3

CARRIED OVER :



SL. NO.	ITEM DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
BROUGHT FORWARD :					
1.9	Connecting the main switch to MCB DB by supply and fixing of 6 SWG G.I. wire along the cable with G.I. staples, bolts, nuts, washers, etc. and mending good all damages to original finish.	Mtr.	60.00		
1.10	Supply and fixing of 16A modular type master controlling switch with indicator in mounting box and front plate on wall for controlling external light fittings including Interconnection, etc. as required.	Each	1		
1.11	<u>Earthing (General)</u> Earthing the installation as per I.E Rules conforming to I.S : 3043 - 1987 or its latest ammendment by making earth sation with 3 meter long 50 mm dia G.I earth Pipe (Partly Perforated) to be installed such that its top end shall be at 300 mm below ground level after preparation of ground with charcoal & Salt and connecting with 25 mm x 6 mm G.I earth lead-in-strip upto 10 metre length by bolting and then brazing, complete with nut, bolt, washer etc. as required. The earthing stallon shall be provided with 300 mm x 300 mm x 300 mm inside dimension masonry inspection Pit with C.I. hinged cover.	Each	2		
1.12	Extra for earth lead-in-strip exceeding 10 meter as mentioned in above item with supply and fixing of 25mm x 6mm G.I Strip to be fixed on wall or directly buried in ground including connection complete.	Mtr	20.00		
1.13	Supplying and fixing of 16 A plug top with 1100 V grade 3 core 2.5 sq. mm PVC insulated copper cable of 1.5 mtr. length one metre to be permanently fixed to the Switch Board of Locker Room, complete in all respects.	Each	1		
1.14	Supply & fixing of 415V,40A 4P MCB In suitable size M.S. Box same for Light cut off switch in Main Gate.	Each	1		

TOTAL CARRIED TO ELECTRICAL SUMMARY :

SCH-E/6



B. SUPPLY OF LIGHT FITTINGS & FANS

SL. NO.	ITEM DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
A	Supply of light and electrical fittings including lamp and all necessary accessories :				
1	<u>Surface mounted / Suspended luminaries</u>				
i)	1x22 watt LED Light fittings (Philips or similar approved make).	Each	12		
2	<u>Recessed mounted luminaries</u>				
i)	LED based luminaries 1x34 watt LED based square light fittings.	Each	10		
ii)	Down lighter 1x15 W LED down lighter fittings.	Each	10		
3	Supply of fan fittings with all necessary accessories, but except regulator.				
i)	<u>Ceiling fan</u> 1200mm dia.	Each	1		
ii)	<u>Wall bracket fan</u> 400 mm dia.	Each	11		
iii)	<u>Exhaust Fan</u> 300 mm dia without mounting ring & louvre complete	Each	3		
4	<u>SUPPLY & FIXING OF CALL BELLS</u>				
	Supplying and fixing on wall call bell buzzer (approved by Consultant) suitable for 240 volt single phase A.C. supply including interconnection, etc. as required.	Each.	1		

TOTAL CARRIED TO ELECTRICAL SUMMARY :

SCH-E/7



C. COMPUTER POWER WIRING

SL. NO.	DESCRIPTION OF ITEM	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
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3.1 INDUSTRIAL TYPE SOCKET AND PLUG DB

Supply and installation of following Legrand make universal mounting DB with Industrial type socket and match plug for UPS incoming & outgoing only :

- | | | | | | |
|------|---|------|---|--|--|
| i) | 32A, 3P+N+E, 5 pin industrial type socket with matching plug and 25A, TP MCB control including interconnection.(for UPS incoming) | Each | 2 | | |
| ii) | 32A, 2P+E, 3 pin industrial type socket with matching plug and 25A, DP MCB control including interconnection.(for UPS outgoing) | Each | 2 | | |
| iii) | Supply and installation of 2 no 32A 4P on load change over switch, 100A copper busbar, 2 nos 32A SP, MCBs etc. in sheet steel enclosure for computer distribution system. | Each | 1 | | |

3.2 COMPUTER DISTRIBUTION BOARD (CDB)

Supply and installation of following MDS make metallic double door MCB Distribution Board with MCB having short circuit breaking capacity of 10 KA (minimum) and RCBO of 300 mA sensitivity having overload, short circuit and earth leakage protection complete with busbar, interconnection, mounted on flat iron frame on wall/flushed with finished wall by chase cutting, mending good to original finish, painting, etc. as required. Name plate of DB is to be fixed up on front door of DB for its identification.

SPN 12 way SPN MCB DB complete with busbar and the following MCBs./ RCBO :

INCOMING :

1 No. 240 V 25A DP MCB

OUTGOING :

10 Nos. 240 V 6A SP MCB

Each 2

3.3 COMPUTER SOCKET OUTLET CLUSTER POINT WIRING

Computer socket outlet cluster point wiring with 1100 V grade 3 nos. single core (1 for earth, green colour) 2.5 sq.mm. PVC insulated flexible FRLS copper conductor cable conforming to IS : 694 through suitable size PVC conduit (ISI mark embossed on conduit surface) and conduit accessories partly concealed in wall/ embedded in floor, partly on surface above false ceiling and partly through partition or through flexible conduit from DB to computer socket outlet cluster as detailed below and upto connection of 2 nos. socket clusters in 1 (one) circuit connecting by looping method. The work includes supply and fixing of socket outlet clusters component/ sets as detailed below :

- | | | | | | |
|----|---|------|----|--|--|
| i) | Each computer socket outlet cluster comprising the following : | | | | |
| | 2 nos. 6A 5 pin modular type shuttered socket. (below table) | | | | |
| | 2 no. 6/16A 6 pin modular type shuttered socket. (below table) | | | | |
| | 2 no. 16A modular type controlling switch with indicator. (above table) | | | | |
| | 1 no. Front Plate of suitable size. | | | | |
| | 1 no. Mounting box of suitable size. | Each | 11 | | |

CARRIED OVER :



SL. NO.	DESCRIPTION OF ITEM	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
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BROUGHT FORWARD :

3.4 SUBMAIN WIRING :

Submain wiring with following size 1100 V grade, single core, PVC insulated flexible copper conductor cable conforming to IS : 694 through PVC conduit (ISI mark embossed on conduit surface) and conduit accessories partly on surface (above false ceiling) with M.S. bar saddles, partly through partition and partly concealed in wall / embedded in floor by chase cutting, mending good all damages, painting, etc. as required to be completed in all respect.

- i) From Main DB to UPS Incoming and UPS outgoing to CDB with 2 nos. 6 Sq.mm. + 1 no. 2.5 Sq.mm. (Green colour for earth) PVC Insulated flexible copper conductor cable in 25 mm dia. M.S.conduit

Mtr 120.00

- ii) With 2 nos. 2.5 sq.mm. + 1 no. 1.5 sq.mm. (green colour for earth) PVC insulated copper wire in 20 mm dia PVC conduit / casing capping. (for each computer power point)

Mtr 250.00

3.5 EARTHING (COMPUTER)

Earthing the installation as per I.E. rules conforming to IS:3043-1987 or its latest amendment by making earth station with 450mm x 450mm x 6mm (minimum) thick copper plate electrode to be installed such that its top edge shall be at a minimum depth of 3.0 metre below ground level after preparation of ground with charcoal and salt and connecting the earth lead-in-wire by bolting and then brazing to the copper plate complete with copper bolts of suitable length double nuts and washers, copper lugs including supply and fixing of 50mm dia. partly perforated G.I. pipe with funnel for watering arrangement.

- i) The earthing installation should be provided with 300mm x 300mm and 300mm depth inside dimension masonry inspection pit with C.I. hinged cover having locking arrangement and restoring the surfaces duly rammed.

Each 1

- ii) Supplying and fixing of 1 x 10 Sq.mm PVC Insulated copper wire through suitable size PVC conduit to be fixed on wall surface with bar saddles / clamps at an interval of 300mm etc. as required to be completed in all respect. The underground portion of earth lead-in-wire to be laid at an average depth of 500 mm below ground level.

Mtr. 15.00

3.6 COMPUTER DATA SOCKET

Supply and fixing on wall / furniture / partition recessed type D - Link make Computer data socket (RJ 45) with mounting box & front plate as shown in the drawing complete with chase cutting, mending good etc. as required.

Each 11

3.7 COMPUTER DATA WIRING

Supplying and laying of CAT - 6 cables through pre-laid rigid PVC conduit as shown in the drawing or otherwise as directed by the consultant from server to Computer Data Socket (through HUB, if required) Including Interconnection mending good, etc. as required to be completed in all respect.

Mtr. 450.00

TOTAL CARRIED TO ELECTRICAL SUMMARY :



LIST OF APPROVED MATERIALS**INTERIOR & FURNITURE WORKS**

SL. NO.	MATERIAL	BRAND/MANUFACTURER
1.	GYPBOARD FALSE CEILING	- SAINT GOBAIN 'GYPROC'
2.	MINERAL FIBRE FALSE CEILING	- ARMSTRONG - DAIKEN
3.	MR/BWR GRADE BLOCK BOARD, PLY BOARD AND FLUSH DOOR SHUTTER	- GREEN - SATABDI - ASIAN PLY - GLOBE - SYLVAN
4	LAMINATES	- GREEN MICA - AICA - ARCHID - INTIM - MERINOLAM
5.	GLAZING	- MODI FLOAT - ST. GOBAIN
6.	SYNTHETIC ENAMEL PAINT	- "LUXOL HIGLOSS" (BERGER) - DULUX 'VELVET TOUCH' ENAMEL (ICI) - ASIAN
7.	WHITE CEMENT PUTTY	- BIRLA WHITE - J.K WHITE - MYK - LATICRETE
8.	ACRYLIC EMULSION PAINT	- ASIAN PAINT - BERGER
9.	CABINET /DRAWER LOCKS, DRAWER SLIDES, AUTO-HINGES, KEYBOARD TRAYS	- DORSET - GODREJ - EBCO
10.	DOOR LOCKS AND HANDLES	- DORSET - DORMA (XL) - OZONE



LIST OF APPROVED MATERIALS
ELECTRICAL WORKS

SL. NO.	ITEM	ITEM DETAIL	APPROVED BRAND / MANUFACTURER
1.	CONDUITS	I) M.S.(BLACK STOVE ENAMELED)	- B.E.C. - NIC - AKG - SENCO
		II) PVC RIGID	- B.E.C. - AKG - PRECISION
		III) G.I. FLEXIBLE	- B.E.C. - PRECISION - AKG - ATUL
		IV) GALVANISED STEEL	- B.E.C. - PRECISION - AKG - ATUL
		V) PVC CASING –CAPPING	- PRECISION - PRESTO-PLUS
2.	CABLES & WIRES	I) 11 KV ALUMINUM	- POLYCAB - FINOLEX - HAVELS - MESCAB
		II) 1100 V GRADE PVC / XLPE INSULATED STEEL ARMORED AND OVER ALL PVC SHEATHED	- FINOLEX - POLYCAB - HAVELS - MESCAB
		III) PVC INSULATED STRANDED/FLEXIBLE COPPER CONDUCTOR WIRE WITH SIZE IN SQMM. EMBOSSED ON CABLE SURFACE (FOR INTERNAL WIRING)	- FINOLEX - POLYCAB - HAVELS - MESCAB
		IV) LAN	- FINOLEX - LUCENT - D – LINK/AMP/MOLEX
		V) TELEPHONE	- FINOLEX - DELTON
		VI) TV ANTENNA	- FINOLEX - POLYCAB - ORBIT - KEI - MESCAB



SL. NO.	ITEM	ITEM DETAIL	APPROVED BRAND / MANUFACTURER
3.	PROTECTIVE DEVICE	I) TPN & SPN SWITCH FUSE UNIT WITH HRC FUSE	- SIEMENS - L&T - SCHNEIDER - ABB - INDO ASIAN - NORTH WEST
		II) MCCB, MCB, MCB-DB, RCBO, RCCB, ACB & ELCB	-SIEMENS -L&T - SCHNEIDER - ABB - HAVELS - PHILIPS
		III) MANUAL CHANGEOVER SWITCH/AUTO CHANGE OVER SWITCH	- L&T - LEGRAND, -HAGER
		IV) DOL STRATER	- SIEMENS - LARSEN & TOUBRO - INDO ASIAN
		V) CURRENT TRANSFORMER	- L & T, - KAYCCE - KUPPA/AE/IMP - INDO ASIAN
4.	SWITCHES & SOCKET SWITCH FRONT PLATE AND MOUNTING BOX (MODULAR TYPE)	I) 6A / 16A SWITCH, SOCKET, TELEPHONE SOCKET (RJ-11) LAN SOCKET(RJ-45), ELECTRONIC REGULATOR/DIMMER	- MK(WRAPAROUND PLUS) - Anchor(Roma) -Legrand(Myrius)
		II) ON/OFF / SELECTOR SWITCH	- SIEMENS - LARSEN & TUBRO - INDO ASIAN
		III) METAL CLAD SOCKET & PLUG HAVING SCRAPING EARTH ARRANGEMENT	- SIEMENS - LEGRAND - HAGER
5.	BELL	BUZZER BELL/CALL BELL, BUZZER INDICATOR (LUMINOUS TYPE)	- BAJAJ - ANCHOR
6	INSTRUMENT	INDICATING INSTRUMENT/ MEASURING INSTRUMENT	- AE - IMP - L&T - GE
7.	LUMINARIES	I) LED LIGHT FITTINGS	- PHILIPS - WIPRO - HAVELLS - BAJAJ



SL. NO.	ITEM	ITEM DETAIL	APPROVED BRAND / MANUFACTURER
8.	FAN FITTINGS	I) CEILING FAN	- HAVELLS - BAJAJ - CROMPTON - USHA - ORIENT
		II) WALL MOUNTING / PEDESTAL FAN	- HAVELLS - BAJAJ - CROMPTON - USHA - ORIENT
		III) EXHAUST FAN	- HAVELLS - BAJAJ - CROMPTON - USHA - ORIENT
9.	AIR-CONDITIONERS (3 STAR OR EQUIVALENT)	WINDOW TYPE HI-WALL SPLIT TYPE DUCTABLE SPLIT TYPE	- VOLTAS - CARRIER - HITACHI - BLUE-STAR
10.	STARTER	LIGHT-STARTER	- SIEMENS - L&T - SCHNEIDER
11.	REGULATOR	CEILING FAN-REGULATOR	- ANCHOR - LEGRAND - CLIPSAL
12.	RELAY		- L & T - ABB - SIEMENS - INDO ASIAN

Note :

All other items not covered above, as per sample approved by employer/consultant.

