

MOTILAL NEHRU COLLEGE: BENITO JUAREZ MARG: NEW DELHI-110021

M.N.C./BJM/2022/798

Original Estimate

Civil/Electrical works Computer labs for Deptt of Mathematics, Moti Lal Nehru College, SDC.

N/W

| SLNo | Description | Qty | Unit | Rate | Amount | DSR No. |
|-------|--|-----|------|------|--------|---------|
| 1 | CONCRETE WORK | | | | | |
| 1.1 | Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : | | | | | |
| 1.1.1 | 1:2:4 (1 Cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 40 mm nominal size derived from natural sources). | 1 | cum | | | |
| 1.1.2 | 1:4:8 (1 Cement : 4 coarse sand (zone-III) derived from natural sources : 8 graded stone aggregate 40 mm nominal size derived from natural sources). | 1 | cum | | | |
| 1.2 | Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing : | | | | | |
| | Sub-Total | | | | | |
| 2 | REINFORCED CEMENT CONCRETE | | | | | |
| 2.1 | 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 above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement: 1.5 coarse sand (zone-III) derived from natural sources: 3 graded stone aggregate 20 mm nominal size derived from natural sources). | 1.5 | cum | | | |
| 2.2 | Centering and shuttering including strutting, propping etc. and removal of form for | | | | | |
| 2.2.1 | Shelves (Cast in situ) | 16 | sqm | | | |
| 2.3 | Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. | | | | | |
| 2.3.1 | Mild steel and Medium Tensile steel bars | 150 | kg | | | |
| | Sub-Total | | | | | |
| 3 | MASONRY WORK | | | | | |
| 3.1 | 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. | | | | | |
| 3.1.1 | Cement mortar 1:3 (1 cement :3 coarse sand) | 6 | sqm | | | |
| | Sub-Total | | | | | |
| 4 | CLADDING WORK | | | | | |

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| 4.1 | Providing and fixing 18 mm 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, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels. | | | | |
| 4.1.1 | Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble | | | | |
| 4.1.1.1 | Area of slab over 0.50 sqm | 25 | sqm | | |
| 4.2 | Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter and similar location in marble/ Granite/ stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete. | 1 | each | | |
| 4.3 | Providing and fixing 1st 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. | 60 | sqm | | |
| | Sub-Total | | | | |
| 5 | WOOD AND PVC WORK | | | | |
| 5.1 | 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 : | | | | |
| 5.1.1 | 250x10 mm | 4 | each | | |
| 5.2 | 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, with necessary screws etc. complete : | | | | |
| 5.2.1 | 125 mm | 4 | each | | |
| 5.3 | Providing and fixing factory made uPVC white colour sliding glazed window upto 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads and uPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealant shall be paid separately). Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made. | | | | |
| 5.3.1 | Two track two panels sliding window made of (small series) frame 52 x 44 mm & sash 32 x 60 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area of window upto 1.75 sqm) | 6 | sqm | | |

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| 5.4 | P/f aluminium powder to coated openable door shutter for (main door) i/c aluminium frame etc. of standard aluminium sections i/c glass/ partial board of existing design i/c old fittings complete. | 2 | sqm | | | |
| | Sub-Total | | | | | |
| 6 | STEEL WORK | | | | | |
| 6.1 | Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitred and welded, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer. | | | | | |
| 6.1.1 | Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size). | 40 | kg | | | |
| | Sub-Total | | | | | |
| 7 | FLOORING | | | | | |
| 7.1 | Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete. | | | | | |
| 7.1.1 | Size of Tile 600x600 mm | 50 | sqm | | | |
| | Sub-Total | | | | | |
| 8 | ROOFING | | | | | |
| 8.1 | Providing reinforced by organic fibres and/or inorganic synthetic fibres cement 6 mm thick corrugated sheets (as per IS: 14871) roofing up to any pitch and fixing with polymer coated J, or L hooks, bolts and nuts 8 mm dia. G.I. plain and bitumen washers or with self drilling fastener and EPDM washers etc. complete (excluding the cost of purlins, rafters and trusses), including cutting sheets to size and shape wherever required. | 70 | sqm | | | |
| 8.2 | Extra for providing and fixing wind ties of 40x 6 mm flat iron section. | 30 | metre | | | |
| 8.3 | Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design : | | | | | |
| 8.3.1 | In 75x75 mm deep chase | 15 | metre | | | |
| 8.4 | Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x 1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge. | | | | | |

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| 8.4.1 | GI Metal Ceiling Lay in plain Tegular edge Global white color tiles of size 595x595 mm, and 0.5 mm thick with 8 mm drop; made of G I sheet having galvanizing of 100 gms/sqm (both sides inclusive) and electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending. | | | | |
| | Sub-Total | 50 | sqm | | |
| 9 | FINISHING | | | | |
| 9.1 | 12 mm cement plaster of mix : | | | | |
| 9.1.1 | 1:4 (1 cement: 4 coarse sand) | | | | |
| 9.2 | Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface : | 50 | sqm | | |
| 9.2.1 | Water thinnable cement primer | | | | |
| 9.3 | Finishing walls with water proofing cement paint of required shade : | 100 | sqm | | |
| 9.3.1 | New work (Two or more coats applied @ 3.84 kg/10 sqm) | | | | |
| | | 100 | sqm | | |
| 9.4 | Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade : | | | | |
| 9.4.1 | Two or more coats on new work | 100 | sqm | | |
| 9.5 | Painting with synthetic enamel paint of approved brand and manufacture to give an even shade : | | | | |
| 9.5.1 | Two or more coats on new work | 20 | sqm | | |
| 9.6 | 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. | | | | |
| | Sub-Total | 100 | sqm | | |
| 10 | REPAIRS TO BUILDING | | | | |
| 10.1 | Cleaning disposal of malba etc. | 1 | job | | |
| 10.2 | P/f 4mm tinted glass of existing design as per UGC building i/c removal of old window glass | 4 | sqm | | |
| 10.3 | Dismantling the old damaged A/c sheet and cleaning the roof etc.and disposal of dismetled materials. | 1 | job | | |
| 10.4 | Rearranging rain water out lets with pipes of existing pattern i/c all fittings complete - 150mm pvc pipes. | 20 | mtr | | |
| 10.5 | Taking out old pvc false ceiling and disposal etc. | 1 | job | | |
| 10.6 | Making special arrangement for fixing new A.C. sheet with existing wall i/c bricks works over lep plaster etc. to avoid entry of rain water in the wall etc. as directed by the Engineer in charge. | 1 | job | | |
| 10.7 | Fiber sheet sun shade above the window with M.S. tube frame and fiber sheeet of existing pattern 3' wide 8' long as directed. | 2 | job | | |
| 10.8 | Making arrangement for welding GI/M.S. pipe 25mm along the existing l sections for hanging false ceiling hooks/fan etc. as reqeud at site . | 1 | job | | |
| 10.9 | Anti termite treatment of inside and out side room. | 1 | job | | |
| | Sub-Total | | | | |
| 11 | DISMANTLING AND DEMOLISHING | | | | |
| 11.1 | 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. | | | | |
| 11.1.1 | In cement mortar | 0.3 | cum | | |

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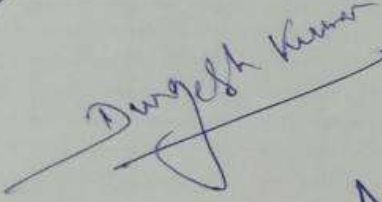
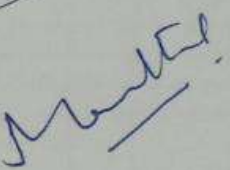
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|----------|--|----|-------|--|--|--|
| 11.2 | Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead. | | | | | |
| 11.2.1 | For thickness of tiles above 25 mm and up to 40 mm | 50 | sqm | | | |
| 11.3 | 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. | 50 | sqm | | | |
| 11.4 | Extra for p/f CPVC FT PMT / socket / elbow / tee etc. for cpvc lines. | 1 | | | | |
| | Sub-Total | | | | | |
| 12 | SANITARY INSTALLATIONS | | | | | |
| 12.1 | Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete. | | | | | |
| 12.1.1 | Semi rigid pipe | | | | | |
| 12.1.1.1 | 32 mm dia | 1 | each | | | |
| 12.2 | 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 : | | | | | |
| 12.2.1 | 100 mm inlet and 75 mm outlet | | | | | |
| 12.2.1.1 | Sand Cast Iron S&S as per IS- 1729 | 1 | each | | | |
| 12.3 | P/f pillar cock of approved quality of existing designe (jqwar makde) (swan neck) | 1 | no | | | |
| 12.4 | P/f CP cap and extension nipple. | 2 | no | | | |
| 12.5 | P/f oval shape wash basin cept pillar and RCC work. | 1 | job | | | |
| | Sub-Total | | | | | |
| 13 | WATER SUPPLY | | | | | |
| 13.1 | Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making good the walls etc. | | | | | |
| 13.1.1 | 20 mm nominal dia Pipes | 30 | metre | | | |
| 13.2 | Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) : | | | | | |
| 13.2.1 | 25 mm nominal bore | 1 | each | | | |
| 13.3 | Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 | | | | | |
| 13.3.1 | 15mm nominal bore | 1 | each | | | |
| 13.4 | Cutting holes up to 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete so as to make it leak proof. | 7 | each | | | |
| | Sub-Total | | | | | |
| 14 | DRAINAGE | | | | | |
| 14.1 | Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design: | | | | | |

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| 14.1.1 | 100x100 mm size P type | | | | | |
| 14.1.1.1 | With common burnt clay F.P.S. (non modular) bricks of class designation 7.5 | 1 | each | | | |
| | Sub-Total | | | | | |
| 15 | WATER PROOFING | | | | | |
| 15.1 | Providing and applying fibre reinforced elastomeric liquid water proofing membrane with resilient acrylic polymers having Sun Reflectivity Index (SRI) of 105 on top of concrete roof in three coats @10.76 litre/ 10 sqm. One coat of self-priming of elastomeric waterproofing liquid (dilution with water in the ratio of 3:1) and two coats of undiluted elastomeric waterproofing liquid (dry film thickness of complete application/system not less than 500 microns). The operation shall be carried out after scrapping and properly cleaning the surface to remove loose particles with wire brushes, complete in all respect as per the direction of Engineer-in-Charge. | 100 | sqm | | | |
| | Sub-Total | | | | | |
| | Total | | | | | |
| | Cost Index | | | | | |
| | Total | | | | | |
| | Contingencies | | | | | |
| | Grand Total | | | | | |
| | Say | | | | | |

Original Estimate

| Miss. Electrical works at Motilal Nehru college (Computer lab) | | | | | | |
|--|--|-----|-------|------|--------|---------|
| N/W | | | | | | |
| Sl.No | Description | Qty | Unit | Rate | Amount | DSR No. |
| 1 | WIRING | | | | | |
| 1.1 | Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit with piano type switch, phenolic laminated sheet, suitable size MS box and earthing the point with 1.5 sq mm FRLS PVC insulated copper conductor single core cable etc. as required. | | | | | |
| 1.1.1 | Group B | | | | | |
| 1.2 | Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required. | 13 | Point | | | |
| 1.2.1 | 2 X 4 sq. mm + 1 X 4 sq. mm earth wire | | | | | |
| 1.3 | Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required. | 35 | Metre | | | |
| 1.3.1 | 3 x 2.5 sq. mm | | | | | |
| 1.3.2 | 2 x 4 sq. mm | 25 | Metre | | | |
| 1.4 | Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. | 12 | Metre | | | |
| 1.4.1 | 20 mm | | | | | |
| 1.5 | Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. | 45 | Metre | | | |
| 1.5.1 | 5/6 A switch | 120 | Each | | | |
| 1.5.2 | 15/16 A switch | 8 | Each | | | |
| 1.5.3 | 3 pin 5/6 A socket outlet | 130 | Each | | | |
| 1.5.4 | 6 pin 15/16 A socket outlet | 2 | Each | | | |
| 1.6 | Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required. | 3 | Each | | | |
| 1.7 | Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required. | 20 | Each | | | |
| 1.8 | Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required. | | | | | |
| 1.8.1 | 3 Module (100mmx75mm) | 5 | Each | | | |
| 1.8.2 | 12 Module (200mmx150mm) | 30 | Each | | | |
| 1.9 | P/F Led light 2' by 2' (havells, Philips) | 10 | Each | | | |
| 1.1 | P/L net connection with wiring CAT 6 and required socket etc. | 30 | Each | | | |
| | Sub-Total | | | | | |
| 2 | MCCB, MCB & DB'S | | | | | |
| 2.1 | Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/isolator) | | | | | |
| 2.1.1 | 8 way, Double door | 1 | Each | | | |
| 2.2 | Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB, complete with connections, testing and commissioning etc. as required. | | | | | |
| 2.2.1 | Single pole | 5 | Each | | | |
| 2.3 | P/F MCB 20amp | 3 | Nos | | | |
| 2.4 | P/F Tiny trip box with MCB sp. | 3 | Nos | | | |
| | Sub-Total | | | | | |
| 3 | FANS & FITTINGS | | | | | |
| 3.1 | Supply, installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos, blades, 30 cm long down rod, 2 nos, canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CMM/W) minimum 6.85, Air delivery minimum 215 CMM, 350 RPM (tolerance as per IS : 374-2019), THD less than 10%, remote or electronic regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Supply, earthing etc. complete as required. | 3 | Each | | | |
| | Sub-Total | | | | | |
| | Total | | | | | |
| | Say | | | | | |

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