Bill of Quantities

The name of the bidding process is: Construction of City Livelihood Centre (CLC) at Mohal Sidhbari, Dharamshala in District Kangra of Himachal Pradesh

(SH:- Construction of Building portion including Civil works, Water supply & Sanitary installation, Septic tank, Rain water harvesting and Site development etc.)

| **S. No.** | **Description of item** | **Quantity** | **Unit** | **Unit Rates (INR)** | | | **Amount (INR)** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Figures** | **In Words** | |
| 1 | Cutting in earth work in all heights and depths in all kinds of soils, including saturated soils comprising of pick work, jumper work and blasting work both in soft and hard rock with chiseling and wedging out of rock (where blasting is prohibited) and their intermediate classification of soils including, dewatering wherever required, setting out to required lines, levels as shown on the drawing and directed by the engineer -in-charge at site., according to the HP.PWD. specification of 1990 (one thousand nine hundred ninety) volume-I (one) and sorting out useful and un useful material and transportation of the un useful material for disposing at dumping site (To be arranged by the contractor) as per satisfaction of Engineer- in -charge through all modes of transportation including head load ,animal load or mechanical means along with its leveling fine dressing and with all kinds of labour, machineries, tools equipment and safety measures and incidentals necessary to complete the work by mechanical means and labour ( if required ). All useful material such as stones, shingles aggregate and slates shall be properly stacked at site to the maximum possible extent in all leads and lifts through all modes of transportation and used /removed as per the direction of the Engineer - in- charge. Any loss to the public and private propriety during the course of execution and disposal of serviceable and unserviceable materials shall be the absolute responsibility of the contractor and shall have to be duly compensated by him in all respects including all incidental charges. | 388.32 | cu.m |  |  | |  |
| 2 | Excavation in foundation and trenches in earth work in all heights and depths in all kinds of soils, including saturated soils comprising of pick work, jumper work and blasting work both in soft and hard rock with chiseling and wedging out of rock (where blasting is prohibited) and their intermediate classification of soils including, dewatering wherever required, setting out to required lines, levels as shown on the drawing and directed by the engineer -in-charge at site., according to the HP.PWD. specification of 1990 (one thousand nine hundred ninety) volume-I (one) and sorting out useful and unuseful material and transportation of the unuseful material for disposing at dumping site (To be arranged by the contractor) as per satisfaction of Engineer- in -charge through all modes of transportation including head load ,animal load or mechanical means along with its leveling fine dressing and with all kinds of labour, machineries, tools equipments and safety measures and incidentals necessary to complete the work by mechanical means and labour ( if required ). All useful material such as stones, shingles aggregate and slates shall be properly stacked at site to the maximum possible extent in all leads and lifts through all modes of transportation and used /removed as per the direction of the Engineer - in- charge. Any loss to the public and private propriety during the course of execution and disposal of serviceable and unserviceable materials shall be the absolute responsibility of the contractor and shall have to be duly compensated by him in all respects including all incidental charges. | 948.15 | cu.m |  |  | |  |
| 3 | Excavation in earth work in all heights and depths in all kinds of soils, including saturated soils comprising of pick work, jumper work and blasting work both in soft and hard rock with chiseling and wedging out of rock (where blasting is prohibited) and their intermediate classification of soils including, dewatering wherever required, setting out to required lines, levels as shown on the drawing and directed by the Engineer -in-charge at site., according to the HP.PWD. specification of 1990 (one thousand nine hundred ninety) volume-I (one) and sorting out useful and unuseful material and transportation of the unuseful material for disposing at dumping site (To be arranged by the contractor) as per satisfaction of Engineer- in -charge through all modes of transportation including head load ,animal load or mechanical means along with its leveling fine dressing and with all kinds of labour, machineries, tools equipments and safety measures and incidentals necessary to complete the work by mechanical means and labour ( if required ). All useful material such as stones, shingles aggregate and slates shall be properly stacked at site to the maximum possible extent in all leads and lifts through all modes of transportation and used /removed as per the direction of the Engineer - in- charge. Any loss to the public and private propriety during the course of execution and disposal of serviceable and unserviceable materials shall be the absolute responsibility of the contractor and shall have to be duly compensated by him in all respects including all incidental charge | 65.00 | cu.m |  |  | |  |
| 4 | Excavation in drain and channel in earth work in all heights and depths in all kinds of soils, including saturated soils comprising of pick work, jumper work and blasting work both in soft and hard rock with chiseling and wedging out of rock (where blasting is prohibited) and their intermediate classification of soils including, dewatering wherever required, setting out to required lines, levels as shown on the drawing and directed by the engineer -in-charge at site., according to the HP.PWD. specification of 1990 (one thousand nine hundred ninety) volume-I (one) and sorting out useful and unuseful material and transportation of the unuseful material for disposing at dumping site (To be arranged by the contractor) as per satisfaction of Engineer- in -charge through all modes of transportation including head load ,animal load or mechanical means along with its leveling fine dressing and with all kinds of labour, machineries, tools equipments and safety measures and incidentals necessary to complete the work by mechanical means and labour ( if required ). All useful material such as stones, shingles aggregate and slates shall be properly stacked at site to the maximum possible extent in all leads and lifts through all modes of transportation and used /removed as per the direction of the Engineer - in- charge. Any loss to the public and private propriety during the course of execution and disposal of serviceable and unserviceable materials shall be the absolute responsibility of the contractor and shall have to be duly compensated by him in all respects including all incidental charges. | 164.47 | cu.m |  |  | |  |
| 5 | Filling in plinth with sand under floors including watering, ramming, consolidating and dressing complete as per HP PWD specification 1990 volume - 1, including carriage of all labour equipment's and materials to various location through all modes of transportation in all leads and lifts, including all incidental charges as per entire specification of the Engineer - in -charge. | 40.47 | cu.m |  |  | |  |
|  | **FORM WORK** |  |  |  |  | |  |
| 6 | Providing form work with steel plates (3.15mm) three point fifteen millimeter thick welded with angle iron in frame (30x30x5mm) ( Thirty x thirty x five millimeter) so to give fair finish including centering, shuttering, strutting and propping etc., with wooden battens and ballies height of propping and centering below supporting floor to ceiling in all floor level /heights and removal of the same for insitu-reinforced concrete and plain concrete work including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge . |  |  |  |  | |  |
| a | Foundations, footings & bases of columns etc., and mass concrete. | 207.29 | Sqm. |  |  | |  |
| b | Flat surfaces such as soffits of suspended floors, roofs, landing and the like. | 498.97 | Sqm. |  |  | |  |
| c | Vertical surfaces such as walls (any thickness) partitions and the like including attached pillasters, buttresses, plinth and string courses and the like | 155.10 | Sqm. |  |  | |  |
| d | Edges of slabs and breaks in floors and walls | 60.14 | Sqm. |  |  | |  |
| e | Column, pillars, posts and struts. |  | Sqm. |  |  | |  |
| f | Square, rectangular or polygonal in plan. | 553.25 | Sqm. |  |  | |  |
| g | Circular or curved in plan. | 10.27 | Sqm. |  |  | |  |
| h | Stair cases with sloping or stepped soffits excluding landing | 15.53 | Sqm. |  |  | |  |
| i | Beams, cantilevers, girders and lintels. |  | Sqm. |  |  | |  |
| j | Sides and soffits of beams, beam haunching, cantilevers, bressumers and lintels not exceeding 1 mtr. In depth in all heights from floor. | 849.06 | Sqm. |  |  | |  |
| k | Sloping or battering surfaces including folded plates where inclination to horizontal does not exceed 30 (thirty) degree | 157.97 | Sqm. |  |  | |  |
| l | Where inclination to horizontal exceeds 30 (thirty) degree | 55.00 | Sqm. |  |  | |  |
| m | Cornices and mouldings | 20.00 | Sqm. |  |  | |  |
| n | Chulhah hoods, weather shades, chajjas, corbels etc including edges | 53.82 | Sqm. |  |  | |  |
| o | Vertical fins and vertical sun breakers | 25.00 | Sqm. |  |  | |  |
|  | **CONCRETE WORK** |  |  |  |  | |  |
| 7 | Providing and laying cement concrete 1:6:12 (one cement :six sand :twelve graded stone 40mm nominal size)(Forty milimetre) and curing complete excluding cost of form work in foundation and plinth including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge . | 42.35 | Cum. |  |  | |  |
| 8 | String courses, coping bed plates, anchor blocks, plain window sills and the like | 0.43 | Cum. |  |  | |  |
| 9 | Mouldings as in cornices, window sills etc | 3.00 | Cum. |  |  | |  |
| 10 | Providing and laying damp proof course 50mm thick with cement concrete 1:2:4 (1 cement:2 sand:4 graded stone aggregate 20mm nominal size) and curing complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge . | 42.38 | Sqm. |  |  | |  |
| 11 | Applying a coat of hot bitumen (mexphalt) 80/100 or equivalent using 1.7kg per square meter on damp proof course after cleaning the piece of cloth lightly soaked in kerosene oil including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge . | 42.38 | Sqm. |  |  | |  |
| 12 | Providing and laying cement concrete 1:1.5:3 (One cement one and half sand : three graded stone aggregate 20rnm nominal size)( Twenty milimetre) and curing complete including form work in string coursescoping bed playes,anchor blocks plain window sills and the like including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
| a | Foundations, footings & bases of columns etc., and mass concrete. | 99.55 | Cum. |  |  | |  |
| b | Walls (any thickness but not less than 0.1 m thickness), columns, attached pillasters buttereses plinth and string courses etc. from top of foundation level up to all floor level. | 31.09 | Cum. |  |  | |  |
| c | Columns, pillars, posts and struts in all floor levels. | 44.25 | Cum. |  |  | |  |
| d | Suspended floors, roofs, landings and shelves and their support balconies, beams, girders, bressumers and cantilevers in all floor levels. | 158.72 | Cum. |  |  | |  |
| e | Stair cases (except spiral stair cases) excluding landing but including preparing to the surface and finishing of nosing in all floor levels. | 2.33 | Cum. |  |  | |  |
| f | Vertical and horizontal fins(thickness not more than 0.10m) individually or froming box louvers and projected bands upto all levels. | 50.00 | Cum. |  |  | |  |
| 13 | Providing reinforced concrete eaves board 25mm thick and 15cm to 30 cm wide in cement concrete 1:2:4 (1 cement:2 sand:4 graded stone aggregate 20mm nominal size) and curing complete, upto all levels including centring and form work, excluding the cost of reinforcement. | 56.97 | Cum. |  |  | |  |
| 14 | Providing mild steel/tor steel reinforcement for reinforced cement concrete work including bending, binding and placing in position complete in all floor levels (a). Tor steel. including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 60939.00 | Kg |  |  | |  |
| 15 | Applying cement slurry on Reinforcement Cement concrete slab or cement concrete work using 2.75 kgs. (Two point seventy five Kilogamme) Of cement per square metre of floor area before laying cement concrete flooring including roughening, cleaning of the concrete surfaces complete as per HP. PWD specifications excluding cost of centring and shuttering including carriage in all leads,lifts and as per the direction of Engineer in charge. | 1188.59 | Sqm. |  |  | |  |
| 16 | Providing in RCC work smooth finishing of exposed surface with cement mortar 1:3( 1 cement: 3 sand) | 230.00 | Sqm. |  |  | |  |
| 17 | Providing throating or plaster drip and moulding to RCC chajja | 47.80 | Mtr |  |  | |  |
|  | **BRICKWORK** |  |  |  |  | |  |
| 18 | 2nd Class brick work using common burnt clay building bricks in foundation and plinth in cement mortar 1:6 ( 1 Cement: 6 Sand) as per the direction of the Engineer-in-Charge including carriage of materials up to all leads and lifts and as per the direction of Engineer in charge. | 75.57 | Cum. |  |  | |  |
| 19 | Brick work using common burnt clay building bricks in super structure above plinth in all floor levels. using second class building bricks in cement mortar 1:6 (I cement : 6sand) as per the direction of the Engineer-in-Charge including carriage of materials up to all leads and lifts and as per the direction of Engineer in charge. | 277.74 | Cum. |  |  | |  |
| 20 | 2nd class brick work using common burnt clay building bricks in foundation and plinth in Superstructure above plinth level upto all levels.lift and lead as per the direction of the Engineer-in-Charge including carriage of materials in cement mortar 1:4 ( 1 Cement: 4 Sand) | 21.28 | Cum. |  |  | |  |
| 21 | Half brick work using common burnt Clay building bricks in super structure above plinth level up to floor all level using second class, building bricks in cement mortar 1:4 ( 'cement : 4 sand) including carriage of materials upto all leads. and lifts and as per the direction of Engineer in charge. | 97.75 | Sq.m |  |  | |  |
|  | **STONE MASONARY, PRECAST CONCRETE, BLOCK MASONARY AND MARBLE WORK** |  |  |  |  | |  |
| 22 | Random rubbles masonry/polygonal rubble masonry (uncoursed/brought to courses) with hard stones of approved quality in foundation and plinth at plinth level in Cement Mortar 1:6(1 cement:6 sand) including entire carriage of materials in all leads and lifts and as per the direction of Engineer-in-Charge. | 157.36 | Cum. |  |  | |  |
| 23 | Stone work on plain Ashlar Cyclopean in superstructure with stones of approved quality cement mortar 1:6 ( 1 cement: 6 sand)at all levels including point with cement mortar 1:2 ( 1 cement: 2 sand) : including entire carriage of materials in all leads and lifts and as per the direction of Engineer-in-Charge:- | 48.14 | Cum. |  |  | |  |
| 24 | Extra for stone work in plain Ashlar Cyclopean or Ashlar punched; at all levels insquare or rectangular pillars | 10.00 | Cum. |  |  | |  |
| 25 | Stone work for wall lining etc (veneer work) 40mm thick, in cement mortar 1:3 (1 cement: 3 sand) including shuttering, centreing and and pointing with white cement mortar 1:2 (1 white cement: 2 stone dust) with an admixture of pigment matching the stone shade |  | Cum. |  |  | |  |
| a | Red sand stone | 20.00 | Cum. |  |  | |  |
| b | White sand stone | 20.00 | Sqm. |  |  | |  |
| 26 | Boulder filling tightly hand packed under floors | 39.34 | Cum. |  |  | |  |
|  | **WOODWORK** |  |  |  |  | |  |
| 27 | Proding and fixing 35 mm thick including black enamelled M.S butt hinges flush shutters, interior grade, commercial type, core of block board construction with frame of first class hard wood well matched commercial ply veneering , with vertical grains of cross ands and face veneers on both faces of shutters including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 98.06 | Sqm. |  |  | |  |
| 28 | 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) in rectangular or square | 56.70 | Sqm. |  |  | |  |
| 29 | Extra for cutting rebate in flush shutters (overall area of door shutter to be measured) | 88.45 | Sqm. |  |  | |  |
| 30 | Providing and fixing 2nd class teak wood 75x60mm rounded hand railin straight length complete including entire carriage of materials in all leads and lifts. as per the satisfaction of Engineer- in-Charge. | 14.85 | Metre |  |  | |  |
| 31 | Providing and fixing M.S Plain grills of required patterns in wooden frames of windows etc. with M.S flats, square or round bars with round headed bolts and nuts or by screws Plain grill including entire carriage of materials in all leads and lifts. | 819.36 | Kg |  |  | |  |
| 32 | Providing and fixing 250 x16 mm anodized aluminum sliding door bolt anodized colour and shade with bolts and nuts screws etc., complete: including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 78.00 | Each |  |  | |  |
| 33 | Providing and fixing anodized aluminum tower bolt (barrel type) anodized transparent or dyed to required shade and colour with screws etc., complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
| a | 250 x 10 mm | 168.00 | Each |  |  | |  |
| b | 150 x 10 mm | 60.00 | Each |  |  | |  |
| 34 | Providing and fixing 125 mm aluminum handles anodized transparent or dyed to required colour of shade with necessary screws etc., complete: including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 168.00 | Each |  |  | |  |
| 35 | Providing and fixing anodised aluminum work for doors, windows, ventilators and partitions with standard tubular sections appropriate z sections and other sections of approved make conforming to IS 733 and IS 1285 anodised transparent or dyed to required shade according to IS 1868 (Minimum anodic coating of of grade AC 15), fixed with rawl plugs and screws, including necessary filling gaps at junctions at top bottom and sides with required PVC/neoprene/felt/ silicone sealant; aluminum sections shall be smooth rust free, straight mitred and jointed mechanically including cleat angle, snap beadingCP brass/ stainless steel screws complete as per architectural drawings and directions of the Engineer in Charge ; for fixed and openable sections including neoprene gasket, hinges and other hardware: | 1509.30 | Kg |  |  | |  |
| 36 | Providing and fixing glazing with glass panes of 4 mm thickness (weight not less than 10.00 kg/sq.m )in aluminum door, window ventilator shutters and partitions etc with PVC/ neoprene gasket etc, complete as per the architectural drawings and directions of the Engineer in Charge including carriage of materials upto all leads and lifts. | 203.04 | Sqm. |  |  | |  |
| 37 | Filling the gap in between aluminium frame & adjacent RCC/ Brick/Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawing and direction of Engineer-in-charge complete. | 101.00 | Metre |  |  | |  |
| 38 | Glazing with glass panes of 5.5 mm thickness (weight not less than 13.75 kg/sq.m ) | 250.00 | Sqm. |  |  | |  |
| 39 | Providing and fixing double action hydraulic floor spring of approved brand and manufacture (conforming to IS 6315) for aluminum door including cost of cutting floor as required, embedding in floors and cover plates etc, complete as per the direction of the Engineer in Charge i/c making good the floors including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 8.00 | Each |  |  | |  |
| 40 | Providing and fixing false ceiling with 12 mm thick plain/semi perforated or with design ceiling tiles of BWP type phenol formaldehyde synthetic resin bonded pressed particle board conforming to IS:3087 finished with a coat of aluminium primer on both sides & edges and two coats of synthetic enamel paint of approved quality on exposed face fixed to a grid made out of anodised aluminium(with 15 micron anodic coating) T-sections 35 x15x1.5 mm size main runners and cross runners 23.5x19x1.5 mm fixed to main runners placed 600 mm centre tocentre both ways so as to form a grid of 600 mm square. The frame work shall be suspended from ceiling by level adjusting hangers of 6 mm dia M.S rod fixed to roof slab by means of ceiling cleats. The suspenders shall be placed 600x 1200 mm centre to centre including fixing to the frame with C.P brace screws and applying a priming coat of zinc chromate yellow primer (aluminium frame work shall be paid separately)including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 118.83 | Sqm. |  |  | |  |
|  | **PAVING AND FLOORING** |  |  |  |  | |  |
| 41 | Providing and fixing 25 mm ( twenty five millimeters) thick Automatic Hydraulically compressed and polished terrazzo tiles30x30x2.5cm (thirty x thirty x two point five centimeter) ISI marked no. IS 1237 of medium shade as per approved shade flooring in 70% white and 30% grey. the ratio of chips shall be 55% (fifty five percentage) white chips , 15% (fifteen percentage) each maroon, yellow and dark having chip size O,B,2B in ratio of 50%,25%,25% (fifty percentage, twenty percentage, twenty percentage) cement with marble bands o approved shade with marble chips of specified size laid in floor, treads of steps and landings on a bed of 25 mm ( twenty five millimeter) average thickness of cement mortor 1:6 ( one cement : six sand) jointed with neat cement slurry mixed with pigment to match the shade of tiles ( where ever required) in all floors including carriage of materials within all leads and lifts and as per the direction of Engineer-in-Charge. | 220.00 | Sqm. |  |  | |  |
| 42 | Providing and fixing 25 mm ( twenty five millimeters) thick Automatic Hydraulically compressed and polished terrazzo tiles 30x30x2.5cm IS1 marked no IS 1237 of medium shade as per approved shade in dado and skirting in 70% white and 30% grey. the ratio of chips shall be 55% white chips , 15% each maroon, yellow and dark having chip size 0,8,28 in ratio of 50%,25%,25% cement with marble bands of approved shade with marble chips of specified size laid in floor, treads of steps and landings on a bed of 25 mm ( twenty five millimeter) average thickness of cement mortor 1:3 ( one cement : six sand) jointed with neat cement slurry mixed with pigment to match the shade of tiles ( where ever required) in all floors including carriage of materials within all leads and lifts and as per the direction of Engineer-in-Charge. | 245.00 | Sqm. |  |  | |  |
| 43 | Providing and laying 40 mm (forty millimeter) thick cement concrete flooring 1:2:4 (1 cement:2 sand:4 graded stone. aggregate 20mm nominal size) laid one layer finished with a floating coat of neat cement. including preparation of surface grading complete as per the instruction of Engineer-in-Charge. including carriage of materials upto all leads and tills and as per the direction of Engineer-in-Charge. | 57.51 | Sqm. |  |  | |  |
| 44 | 22 mm (twenty millimeter) thick cement plaster skirting in all heights with cement morter I :3 ( 1 cement:3 sand) finished with floating coat of neat cement including rounding of junction with floor upto all floor level including entire carnage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 6.21 | Sqm. |  |  | |  |
| 45 | Extra for making chequers of approved pattern in cement concrete floors, steps, landings and pavements. | 150.00 | Sqm. |  |  | |  |
| 46 | Providing and Laying 40 mm (forty millimeter) thick kota stone slab flooring with 20 mm thick base of cement mortor 1:4 (one cement is to four sand) of size 55x55cm laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab. Including rubbing and polishing complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge | 523.14 | Sqm. |  |  | |  |
| 47 | Kota stone slab 25 mm thick in risers of steps ,skirting dado and pillars laid on 12 mm (average) thick cement morter 1:3 (one cement is to three sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slab. Including rubbing and polishing complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge | 65.12 | Sqm. |  |  | |  |
| 48 | Providing and laying granite stone in flooring 20mm average thickness on base of cement mortar 1:3 (1 cement: 3 Sand) and jointed with grey cement slurry mixed with pigment to math the shade of granite stone, i/c rubbing and polishing complete. | 14.32 | Sqm. |  |  | |  |
| 49 | Providing and fixing 10mm thick antiskid waterproof stain and impact resistant heavy duty vitrified tiles Nitco or equivalent in flooring 600x600mm x 10mm size of approved shade and colour in flooring, treads of steps and landings laid on a bed of 12mm thick cement mortar I :3( 1 cement :3sand) with cement slurry mixed with pigment to the the shade of tiles as required, all complete as directed by the Engineer in Charge. | 105.33 | Sqm. |  |  | |  |
| 50 | Providing and layingDurostone vitrified tiles (300x300mm x 8mm) in grey/colour of required shade in skirting, risers of steps and dados laid over 12mm thick cement mortar I :3( 1 cement :3sand) with cement slurry mixed with pigment to the the shade of tiles as required, all complete as directed by the Engineer in Charge. | 12.38 | Sqm. |  |  | |  |
| 51 | Providing and laying non skid spartic ceramic tiles 5.5mm thick in flooring (300x300mm size) of nitco/onent or its equivalent treads of steps, flooring laid on a bed of 12mm thick cement mortar I :3( 1 cement :3sand) finished with flush pointing in white cement including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 113.33 | Sqm. |  |  | |  |
| 52 | White glazed tiles 6 mm thick in skirting risers of steps and dado of size 20x30cm nitco/orient or its equivalent of approved make and size 12mm thick cement mortar 1:3 (one cement isto three sand) and jointing with neat cement slurry including carriage of material in all leads and lifts :4 size 30 cm x 20 cm as per HPPWD specification 1990 (one thousand Nine hundred Ninety ) volume-I Somany Or its Equivalent including carriage of materials in all leads and lifts as per directions of the Engineer-in-Charge | 208.83 | Sqm. |  |  | |  |
| 53 | Providing and laying 80 mm thick (eighty milimeter) heavy duty precast cement concrete interlocking paver blocks vibro compacted upto M 50 grade i/c border or kerb block of grey or coloured over sub-base of concrete with 25mm thick average thickness of cement mortar 1:4 (1 cement ; 4 sand) laid over and jointed with neat cement to match the shade of the blocks i/c curing rubbing and polishing complete ( sub base concrete floor to be paid for separately) | 350.00 | Sqm. |  |  | |  |
| 54 | Providing and laying 80 mm thick (eighty milimeter) heavy duty precast cement concrete interlocking paver blocks vibro compacted in kerb, steps and the like upto M 50 grade i/c border or kerb block of grey or coloured over sub-base of concrete with 25mm thick average thickness of cement mortar 1:4 (1 cement ; 4 sand) laid over and jointed with neat cement to match the shade of the blocks i/c curing rubbing and polishing complete ( sub base concrete floor to be paid for separately)kerbs, steps and the like | 9.00 | Sqm. |  |  | |  |
|  | **ROOF COVERINGS** |  |  |  |  | |  |
| 55 | Providing and fixing.0.60 mm thick prepainted steel sheet in roofing with hot dipped metalic zinc coated sheet with top coat of regular modified polyster (RNP) organic coating of 20 microns over 5 microns primer coating to back coat of polyster of 5 microns over 5 microns primer coating to back coat of polyster of 5 microns over 5 microns primer coating i/c fixing with prepainted iron J or L hooks, bolts and nuts 6 mm dia metre with prepainted limpet and rubber washers complete with all accesoriees as required as per the direction of Engineer-in-Charge. | 331.45 | Sqm. |  |  | |  |
| 56 | Providing and fixing ridges or hips 60 cm overall with 0.60mm thick prepainted steel sheets in roofing with hot dipped metalic zinc coated sheets with top coat of regular modified polyster organic coating of 20 microns over 5 microns primer coating + back coat of polyster of 5 microns over 5 microns primer coating i/c fixing with prepainted iron J or L hooks, bolts & nuts 6mm dia & prepainted G.I. limpet and bitumen washers complete with all accessories as required as per the direction of Engineer in Charges including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge | 56.21 | Metre |  |  | |  |
| 57 | Providing and fixing valley 90 cm overall 0.60 mm thick prepainted steel sheet in roofing with hot dipped metalic zinc coated sheet with top coat of regular modified polyster organic coating of back coat of polyster of 5 microns over 5 microns primer coating i/c fixing with prepainted iron J or L hooks, bolts and nuts 6mm dia with prepainted GI. limpet and bitumen washers complete with all accessories as required as per the direction of Engineer-in-charge.ncluding preparation of surface excluding grading complete as per the instruction of Engineer-in-Charge. including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 15.40 | Metre |  |  | |  |
| 58 | Providing and fixing flashing 38 cm .overall with 0.60mm thick prepainted steel sheets in roofing with hot dipped metalic zinc coated sheets with top coat of regular modified polyster organic coating of 20 microns over S'microns primer coating + back coat of polyster of 5 microns over 5 microns primer coating i/c fixing with prepainted iron J or L hooks, bolts & nuts 6mm dia & prepainted G.I. limpetand bitumen washers complete with all accessories as required as per direction of the Engineer-in-Charge . | 85.80 | Metre |  |  | |  |
| 59 | Providing and fixing 150 mm diameter on wall face PVC (D-Plast) rain water pipes of working pressure not less than 4.5 kg/sqm including filling the joints with approved adhesive complete carriage of materials within all leads and lifts and as per the direction of Engineer-in-Charge. | 154.00 | Metre |  |  | |  |
| 60 | Providing and fixing on wall faces PVC (D-Plast) accessories for rain water pipes including filling the joints with approved adhesive complete carriage of materials within all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
| a | PVC Plain bend 150mm dia | 40.00 | Each |  |  | |  |
| b | PVC shoe 150 mm dia | 40.00 | Each |  |  | |  |
| 61 | Providing and laying water proofing treatment with Dr. Fixit FASTFLEX or equivalent with two components polymer modified cementitious coating consisting of cementitious powder and a polymer liquid in two coats for first coat:- clean and saturate surface and then applying a coat of Dr. Fixit - FASTFLEX by maintaining a coverage of 6-7 sft per kg to achieve one mm thickness and the same process shalltended upto 300 mm (three hundred milimeter) vertically.The second coat shall be applied in opposit direction after four six-hours of application of first coat then sprinkle sand on top surface of applied Dr. Fixit-FASTFLEX while still tacky over the second coat. Then Apply cement mortar 1:4 ( one cement: four sand) admoixed with 200 ml (two hundred milimeter) of pidiproof LW @ 200 ml (two hundred milimeter) per 50 kg (fifty kilogram) of cement over the floor with the suitable grediant towards drain pipe, while the second coat of Dr. Fixit is still tacky including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 192.00 | Sqm. |  |  | |  |
| 62 | Providing angular fillet 7.5 x 7.5 cm cement concrete 1:2:4 (1 cement: 2 sand: 4 graded stone aggregate 20mm nominal size) | 46.20 | Metre |  |  | |  |
| 63 | Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size), finished with 12mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement rounding the edge sand making and finishing the outlet complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge | 6.00 | Each |  |  | |  |
|  | **STEEL WORK** |  |  |  |  | |  |
| 64 | Steel work welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of red lead paint including carriage of materials upto all leads and lifts as per the directions of Engineer-in-Charge. |  |  |  |  | |  |
| a | In beams, joists, channels angles, tees, flats with connecting plates or angle cleats as in main and cross beams, hip and jack rafters, purlins connected to common rafters and the like | 109.38 | Qtl |  |  | |  |
| b | In gratings framed guard bar, ladders, railing, brackets and similar works. | 19.89 | Qtl |  |  | |  |
| 65 | Providing and fixing angle iron door, window, clerestory window frame manufactured from steel section 40 x 40 x 6mm, including hinges jamb, lock jamb and if required threshold of angle 50 x 25mm welded, lugs with split end tails, including steel butt hinges 2.5mm thick with provision for locking arrangement and shock absorber as specified and applying a coat of approved steel primer after pre treatment of surface, all as directed by Engineer in Charge. | 132.70 | Metre |  |  | |  |
| 66 | Providing and fixing in position Collapsible Steel shutter with vertical chanels 20 x 10 x 2 mm and braced with flat iron diagonals 20 x 5 mm size with top and bottom rails of T,iron 40 x 40 x 6 mm with bolts and nuts locking arrangements, stoppers, handles, including applying priming coat of red lead paint including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge | 11.88 | Sqm. |  |  | |  |
| 67 | Providing and fixing M.S. tubular frames for windows and ventilators with hollow section as approved including MS flats as shown in drawings to recieve fixed glass ,joints mitred and welded and grinded finish profiles required size with 15x3 mm lugs 10 mm long embedded in cement concrete blocks 15x10x10 cm of 1:3:6 (1cement:3 coarse sand:6 graded stone aggregate 20 mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primers, |  |  |  |  | |  |
| a | Fixing with 15 x 3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of CC 1:3:6 (1 cement:3 coarse sand : 6 graded stone aggregate 20 mm nominal size.) | 467.70 | kg |  |  | |  |
| 68 | Providing & fixing fly proof wire gauze to windows, clerestory windows & door with M.S. flat 15 x 3 mm and nuts & bolts complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge |  |  |  |  | |  |
| a | Galvanised M.S. wire gauze with 0.63 mm dia wire and 1.4 mm aperture on both side. | 14.04 | sq.m |  |  | |  |
| 69 | Providing and fixing steel glazed doors, windows and ventilators of standard rolled steel sections, joints mitred and welded with 16 x 3.15 mmlugs 10 cm long embedded in cement concrete blocks of 15 cm x 1o cm x 10 cm size of 1:3:6 (1 cement:3 sand: 6 graded stone aggregate 20 mm nominal size) or with wooden plugs and screws or rawl plug and screws or with fixing clips or with bolts and nuts as required and iron fittings, including providingand fixing of glass paneswith glazing clips and special metal sash putty of approved make complete including applying a priming coat of red lead paint. |  |  |  |  | |  |
| a | Side hung windows | 15.48 | Sqm. |  |  | |  |
| b | Top hung ventilators | 11.70 | Sqm. |  |  | |  |
|  | **PAINTING AND POLISHING** |  | Sqm. |  |  | |  |
| 70 | Painting two coats (excluding priming coat) on new steel and other metal surfaces with ready-mixed paint other than white brushing to give an even shade including cleaning the surfaces of all dirt, dust and other foreign matters:- With white enamel paint.or other than white including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 508.04 | Sqm. |  |  | |  |
| 71 | Applying priming with ready mixed paint brushing wood primer pink over new wood and wood based surfaces after and including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter sand paper and knotting complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge | 196.11 | Sqm. |  |  | |  |
| 72 | Painting two coats(excluding priming coat) with ready mixed paint other than white on new wood and wood based surfaces,with enamel paint to give an even shade including cleaning the surface of dirt,dust and other foreign matter sand papering and stopping ,including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 196.11 | Sqm. |  |  | |  |
|  | **PLASTERING,POINTING, WHITE WASHING, COLOUR WASHING, DISTEMPERING AND OTHER FINISHES.** |  |  |  |  | |  |
| 73 | 6 mm cement plaster to ceiling in cement mortar 1:3 (1 Cement : 3 Sand) at all floor level. The rate isincluding carriage of materials within all leads and lifts and as per the direction of Engineer-in-Charge. | 644.27 | Sqm. |  |  | |  |
| 74 | 15 mm thick cement plasters in single coat on fair side of brick/concrete/stone walls for interior/exterior plastering upto all floor level including arises, internal rounded angles, chamfers and or rounded angles not exceeding 80mm (Eighty milimetres) in girth and finished even and smooth with cement mortar 1:6 (one cement: six sand) including carriage of materials within all leads and lifts and as per the direction of Engineer-in-Charge. | 1830.54 | Sqm. |  |  | |  |
| 75 | 15mm Cement plaster in single coat on the rough side of brick/ concrete/stone walls for interior plastering upto floor two level including arrises,internal rounded angles,chamfers and/or rounded angles not exceeding 80mm in girth and finished even and smooth with cement mortar 1:6 (one cement: six sand)including carriage of materials within all leads and lifts and as per the direction of Engineer-in-Charge. | 2281.90 | Sqm. |  |  | |  |
| 76 | Extra over plastering for providing and mixing waterproofing materials in cement mortar in proportion recommended by manufacturers. | 2184.03 | per Kg of cement |  |  | |  |
| 77 | Pebble dash exterior plaster on walls upto a height of 10 metres above ground level with a mixture of washed pebble or crushed stone aggregate 6mm to 12mm nominal size over and including fresh cement plaster in two coats, backing coat (10mm cement) plaster1:3 (1 cement : 3 sand) and finishing coat of 10mm cement plaster 1:3 (1 cement : 3 sand) mixed with 10% finely hydrated lime by volume of cement including arrises, chamfers and rounded angles not exceeding 80mm in girth including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge.. | 206.46 | Sqm. |  |  | |  |
| 78 | 20mm thick plain cement mortar bands in cement mortar 1:4 (1 cement: 4 sand) upto 300 mm width, upto all levels, lifts and leads; as per drawing and directed by Engineer in Charge. |  |  |  |  | |  |
| a | Raised Band (moulded cement mortar) | 4000.00 | Per metre long per cm wide |  |  | |  |
| 79 | Ruled pointing on coursed or Ashlar stone masonary or concrete block walling with cement mortar 1:3 (1 cement : 3 sand) | 46.36 | Sqm. |  |  | |  |
| 80 | Pointing on Random rubble uncoursed stone masonary with cement mortar 1:3 (1 cement : 3 sand) |  |  |  |  | |  |
| a | Ruled pointing | 46.36 | Sqm. |  |  | |  |
| 81 | Applying Birla white wall care putty over plaster surface after thoroughly brushing the surface free from mortar drops, dust, loose materials and other foreign matters sand papered smooth to give final matter finish to the surface complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 2903.41 | Sqm. |  |  | |  |
| 82 | Finishing wall with weather proof exterior grade emulsion of approved design (Apexultima) or its equivalant on undecorated wall surfaces (two coats) to give an even shade and final finish after throughly cleaning the surface to remove all din, dust and other foreign matter etc including sand paper smooth complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 1092.47 | Sqm. |  |  | |  |
| 83 | Wall painting (two coats) with acrylic emulsion paint of approved brand and manufacture for interior grade on undecorated concrete/stone/ plastered surfaces to give even shade including thoroughly brushing the surface free from mortar dropping and other foreign matter and sand papered smoothinclind applying putty for levelling the surface including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 1810.94 | Sqm. |  |  | |  |
| 84 | Distempering with dry distemper of approved brand and manufacture (two coats) on decorated wall surfaces to give an even shade and final finish over and including primer coat of whiting after throughly cleaning the surface to remove all din, dust and other foreign matter etc including sand paper smooth complete as directed by the Engineer in Charge. | 644.27 | Sqm. |  |  | |  |
| 85 | Supplying and filling broken/ crushed stone/ brick bats aggregatee chipping of hard stone of 40 mm size including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 41.74 | Cum. |  |  | |  |
| 86 | 20 mm cement plaster in two coat backing coat 10 mm and finishing coat 10 mm thick on fair side of brick/stone masonary walls for interior plastering up to floor two level including aamses internal rounded angle chamfers and or rounded angle in cement mortar 1:4 (1 cement : 4 sand)including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 125.75 | Sqm. |  |  | |  |
| 87 | Supplying and fixing cast iron cover with out frame for main hole for 500 mm internal diameter (medium duty) the weight of cover to be not less than 58 kg including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 6.00 | Each |  |  | |  |
| 88 | Supplying and fixing cast iron cover with rectangle frame 445 x 610 mm (light duty) single seal pattern of the weight of cover to be not less than 23 kg.including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 4.00 | Each |  |  | |  |
| 89 | Providing and fixing high pressure PVC spigot and socket waste and ventilating pipe ISI marked including fixing with approved adhesive etc complete 110 mm dia.including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 7.00 | Rmt. |  |  | |  |
| 90 | Providing and fixing PVC Cowl in waste and ventilating pipes ISI marked including fixing with approved adhesive etc complete 110 mm dia.including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 4.00 | Each |  |  | |  |
|  | **MISC. WORK** |  |  |  |  | |  |
| 91 | Providing plinth protection 50mm thick in cement concrete 1:3:6 (1 cement: 3 sand : 6 Graded stone aggregate 20mm nominal size) including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 36.00 | Sqm. |  |  | |  |
| 92 | Providing under layer for plinth protection of 75 mm thick (unconsolidated) bed of dry brick/ stone aggregate 40 mm nominal size rammed consolidated and grouted with fine sand including preparation of ground including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 36.00 | Sqm. |  |  | |  |
| 93 | Brick edging (brick laid on edge) to plinth protection with bricks including grouting with cement mortar 1:4 (1 cement: 4 sand)including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
| 94 | With bricks of size 22.9 cm x 11.2 cm x 7 cm | 60.00 | Metre |  |  | |  |
|  | **ROAD WORK** |  |  |  |  | |  |
| 95 | Preparation of sub grade by dressing to combor (Earth work for the cutting involved for sub-grade to be paid for separately depending upon the classification of soil completed as per HP.PWD specifications including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 350.00 | Sqm. |  |  | |  |
| 96 | Consolidation of sub grade with road roller including making good the undulation etc. with earth or quarry soil etc. and rerolling the sub-grade completed as per HP.PWD specifications including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 350.00 | Sqm. |  |  | |  |
| 97 | Providing dry stone Kharanja drain 60 cm (Sixty Centimeter) wide including 25 cm (twenty five centimeter) side stone laid in cement morter 1:6 (one cement: 6 sand) complete as per HP PWD Specification including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 65.60 | Rmt. |  |  | |  |
| 98 | Stone soling properly hand-packed filling interstices with Kharanja stone and consolidating with power road roller to the requested gradient and comber including spreading watering and rolling of binding materials moorum or earth etc. complete as per HP.PWD specification upto 100 mm spread thickness including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 35.00 | Cum. |  |  | |  |
|  | **WATER SUPPLY & SANITARY INSTALLATION WORK** |  |  |  |  | |  |
| 99 | Providing and Fixing to wall ceiling and floor galvaniscd mild steel tubes , including cutting chases in brickwork, stonework , reinforced concrete(Medium grade) tube fittings and clamps including making good the wall , ceiling and floor including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (a) 15 mm nominal bore | 110.00 | Metre |  |  | |  |
|  | (b) 20 mm nominal bore | 35.00 | Metre |  |  | |  |
|  | (c) 25 mm nominal bore | 60.00 | Metre |  |  | |  |
|  | (d) 32 mm nominal bore | 28.00 | Metre |  |  | |  |
|  | (e) 40 mm nominal bore | 24.00 | Metre |  |  | |  |
| 100 | Providing and Laying in trenches galvanised mild steel tubes (medium grade), tube fitting (Earth work in trenches to be measured and paid for separately): |  |  |  |  | |  |
|  | (b) 20 mm nominal bore | 6.00 | Metre |  |  | |  |
|  | (c) 25 mm nominal bore | 6.00 | Metre |  |  | |  |
|  | (e) 40 mm nominal bore | 12.00 | Metre |  |  | |  |
| 101 | Fixing water meter and stop-cock in galvanised mild steel tube including necessary fittings such as mild steel galvanised jam nut, socket, etc. cutting and making long screws complete (water metre and stopcock to be measured and paid for separately)including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (a) 32 mm nominal bore | 1 | Each |  |  | |  |
| 102 | Constructing chamber 300 mm x 300 mm x 500 mm inside size for stop cock with C.I. surface box 100 mm x 100 mm x 75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix 75 mm thick foundation concrete 1:5:10 (1 cement : 5 sand : 10 graded stone aggregate 40 mm nominal size ) and inside plastering with cement mortar 1:3 (1 cement : 3 sand ) finished with a floating coat of neat cement including curing complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (a) With 100 mm thick walls of brick masonry in cement mortar 1:5 (1 cement : 5 sand) | 4 | Each |  |  | |  |
| 103 | Constructing chamber 600 mm x 450 mm x 600 mm inside size for water mater complete with C.I. double flap surface box 400 mm x 200 mm x 200 mm (in side) with locking arrangement and RCC top slab 1:2:4 mix ( 1 cement : 2 sand : 4 graded stone aggregate 20 mm nominal size) 100 mm thick foundation concrete 1:5:10 mix ( 1 cement : 5 sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 sand ) finished with a floating coat of neat cement including curing complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (a) With 200 mm thick walls of brick masonary in ccement mortar 1:5 (1 cement: 5 sand). | 10.00 | Each |  |  | |  |
| 104 | Providing and filling sand alround the galvanised mild steel tubes and fittings including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 10.00 | Cum. |  |  | |  |
| 105 | Providing and fixing sand cast/cast iron spon spigot and socket soil, waste and ventilating pipes (Lead chaulked joined to be measured and paid for separately )including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (a) 50 mm nominal size | 5.00 | Metre |  |  | |  |
|  | (b) 75 mm nominal size | 32.00 | Metre |  |  | |  |
|  | (c) 100 mm nominal size | 129.20 | Metre |  |  | |  |
| 106 | Providing and fixing castiron holder bats including steel bolts to sand cast iron/cast (spon) iron pipes embeded in and including cement concrete blocks 100 mm x 100 x 100 mm of 1:2:4 mix (1 cement :2 sand : 4 graded stone aggrgate 20 mm nominal size) including cost of cutting holdes and making good the walls including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (a) 50 mm nominal diameter/size pipe | 2 | Each |  |  | |  |
|  | (b) 75 mm nominal diameter/size pipe | 5 | Each |  |  | |  |
|  | (c) 100 mm nominal diameter/size pipe | 54 | Each |  |  | |  |
| 107 | providing and fixing PVC fittings and accessories including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (A) Bends of required degree (any radius) : |  |  |  |  | |  |
|  | I. With ovel access door insertion rubber washer 2 mm thick, bolts and nuts complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (i) 50 mm nominal size | 2 | Each |  |  | |  |
|  | (ii) 75 mm nominal size | 2 | Each |  |  | |  |
|  | (iii) 100 mm nominal size | 24 | Each |  |  | |  |
|  | (B) Offsets : |  |  |  |  | |  |
|  | I. 50 mm nominal size |  |  |  |  | |  |
|  | (ii) with 100 mm projection | 2 | Each |  |  | |  |
|  | II. 75 mm nominal size |  |  |  |  | |  |
|  | (ii) with 100 mm projection | 6 | Each |  |  | |  |
|  | III. 100 mm nominal size |  |  |  |  | |  |
|  | (ii) with 100 mm projection | 6 | Each |  |  | |  |
|  | (C) Single equal branch of required degree: |  |  |  |  | |  |
|  | I. With ovel access door insertion rubber washer 3 mm thick, bolts and nuts complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge.: |  |  |  |  | |  |
|  | (iii) 100 mm nominal size | 6 | Each |  |  | |  |
|  | II. Plain : |  |  |  |  | |  |
|  | (iii) 100 mm nominal size | 6 | Each |  |  | |  |
|  | (D) Double equal branch of required degree: |  |  |  |  | |  |
|  | I. With ovel access door insertion rubber washer 3 mm thick, bolts and nuts complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (iii) 100 mm nominal size | 6 | Each |  |  | |  |
|  | II. Plain : |  |  |  |  | |  |
|  | (iii) 100 mm nominal size | 6 | Each |  |  | |  |
|  | (E) Single unequal branch of required degree: |  |  |  |  | |  |
|  | I. With ovel access door insertion rubber washer 3 mm thick, bolts and nuts complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (iii) 100 mm x 75 mm nominal size | 6 | Each |  |  | |  |
|  | II. Plain : |  |  |  |  | |  |
|  | (ii) 100 mm x 50 mm nominal size | 3 | Each |  |  | |  |
|  | (iii) 100 mm x 75 mm nominal size | 6 | Each |  |  | |  |
|  | (F) Double unequal branch of required degree: |  |  |  |  | |  |
|  | I. With ovel access door insertion rubber washer 3 mm thick, bolts and nuts complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (iii) 100 mm x 75 mm x 75 mm nominal size | 6 | Each |  |  | |  |
|  | II. Plain : |  |  |  |  | |  |
|  | (iii) 100 mm x 75 mm x 75 mm nominal size | 6 | Each |  |  | |  |
|  | (G) Inverted branch, socket type of required degree: |  |  |  |  | |  |
|  | (ii) 100 mm x 100 mm nominal size | 6 | Each |  |  | |  |
|  | (iii) 100 mm x 50 mm nominal size | 6 | Each |  |  | |  |
|  | (H) Inverted branch, spigot type of required degree: |  |  |  |  | |  |
|  | (ii) 100 mm x 100 mm nominal size | 6 | Each |  |  | |  |
|  | (iii) 100 mm x 50 mm nominal size |  | Each |  |  | |  |
|  | (I) Traps without lit sizes: |  |  |  |  | |  |
|  | (ii) 75 mm nominal size | 6 | Each |  |  | |  |
|  | (iii) 100 mm nominal size | 6 | Each |  |  | |  |
|  | (J) Ovel access door insertion rubber washer 3 mm thick, bolts and nuts complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (ii) 75 mm nominal size | 6 | Each |  |  | |  |
|  | (iii) 100 mm nominal size | 6 | Each |  |  | |  |
|  | (K) Diminishing piece: |  |  |  |  | |  |
|  | (ii) 100 mm x 50 mm nominal size | 6 | Each |  |  | |  |
|  | (iii) 100 mm x 75 mm nominal size | 6 | Each |  |  | |  |
|  | (L) Straight inspection piece: |  |  |  |  | |  |
|  | With ovel access, floor, insertion rubber washer 3 mm thick, bolts and nuts complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (ii) 75 mm nominal size | 6 | Each |  |  | |  |
|  | (iii) 100 mm nominal size | 6 | Each |  |  | |  |
|  | (M) Loose Socket: |  |  |  |  | |  |
|  | (ii) 75 mm nominal size | 6 | Each |  |  | |  |
|  | (iii) 100 mm nominal size | 6 | Each |  |  | |  |
|  | (N) Collar: |  |  |  |  | |  |
|  | (ii) 75 mm nominal size | 6 | Each |  |  | |  |
|  | (iii) 100 mm nominal size | 6 | Each |  |  | |  |
|  | (O) Pass over pipe 50 mm nominal size | 6 | Each |  |  | |  |
|  | (P) Sanitary connections. |  |  |  |  | |  |
|  | (i) S. Branch 100 mm nominal/ size | 6 | Each |  |  | |  |
|  | (ii) Branch 100 mm nominal size | 6 | Each |  |  | |  |
|  | (iii) Band 100 mm nominal size | 6 | Each |  |  | |  |
|  | (Q) Single unequal branch of required degree: |  |  |  |  | |  |
|  | I. With Heel Rest |  |  |  |  | |  |
|  | (i) 75 mm nominal diameter | 6 | Each |  |  | |  |
|  | (ii) 100 mm nominal diameter | 6 | Each |  |  | |  |
|  | (R)Tapar: |  |  |  |  | |  |
|  | (i) 100 mm x 50 mm nominal diameter | 6 | Each |  |  | |  |
|  | (ii) 75 mm x 75 mm nominal diameter | 6 | Each |  |  | |  |
|  | (S) Connector plug (stopper): |  |  |  |  | |  |
|  | (i) 75 mm nominal diameter | 6 | Each |  |  | |  |
|  | (ii) 100 mm nominal diameter | 6 | Each |  |  | |  |
| 108 | Providing lead pcaulked joints to sand cast iron cast (spun) iron pipes and fitting including testing of joints including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (i) 75 mm nominal diameter | 6 | Each |  |  | |  |
|  | (ii) 100 mm nominal diameter | 6 | Each |  |  | |  |
| 109 | Providing and fixing M.S. stay and clamps for sand cast iron cast (spun) iron pipes including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (i) 75 mm nominal diameter | 6 | Each |  |  | |  |
|  | (ii) 100 mm nominal diameter | 6 | Each |  |  | |  |
| 110 | Providing and fixing cast iron floor trap of self cleaning design with sand cast iron screwed down or hinged grating with out vent arm complete including cost of cutting and making goods the wells and floors including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (i) 75 mm nominal diameter | 25 | Each |  |  | |  |
| 111 | Cutting chase in stone/brick masonry walls for fixing sand cast iron/cast (spun iron pipes and fittings including making good the same with stone/brick work in cement mortar 1:3 (1 cement :3 sand) including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (i) For 75 mm nominal diameter | 50 | Each |  |  | |  |
|  | (ii) For 100 mm nominal diameter | 80 | Each |  |  | |  |
| 112 | Providing and fixing vitreous China water closet squatting pan (Indain type W.C. pan) size 580 mm (Earth work, bed concrete, foot rest and trap to be measured and paid for separately including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (i) Ornssa Pattern | 4 | Each |  |  | |  |
| 113 | Providing and fixing vitreous China wash, down water closet (European type. W.C.pan) with integral `p' or `s'trap including jointing the trap with soil pipe in cement mortar 1:1 (1 cement: 1 sand) (Seat and over to be measured and paid for separately)including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (i) Ordinary closet | 9 | Each |  |  | |  |
| 114 | Providing and fixing 100 mm size 'P' or ' S' trap for water closet (squatting pan) including jointing the trap with the pan and soil pipe in cement mortar 1:1 (1 cement:1 sand )including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (i) Vitreous China | 15 | Each |  |  | |  |
| 115 | providing and fixing 10.0/12.50/15.00 litres vitreous China low level flushing cistern with a pair of C.I. or mild steel brackets, complete with fitting such as Iead valve less syphon, 15 mm nominal size brass ball valve with polygthene float, C. P. Brass handle unions and couplings for connections with inlet, outlet and overflow pipes, 40 mm dia C.P. flush bend including cutting holes in walls and making good the same and connecting the flush bend with cistern and closet (overflow) pipe to he treasured and paid for separately)including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 13 | Each |  |  | |  |
| 116 | Providing and fixing plastic seat (solid/Hollow type) art cover for wash down water closet with C.P. Brass hings and rubber bufers: |  |  |  |  | |  |
|  | (a) Black plasticse at and cover | 9 | Each |  |  | |  |
| 117 | Providing and fixing Vitreous China automatic flushing cistern having 5 liter capacity with a pair of C.I. or M.S. Brackets complete with fittings including C.I syphonic apparatus, mosquito proof lid, C.P. Brass unions and coupling for connections with inlet,outlet and over-flow pipes including cutting holes and making good the same (overflow pipe to be measured and paid for separately) including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 13 | Each |  |  | |  |
| 118 | Providing and fixing C.P. brass flush pipe/spreaders for urinal with fitting such as unions, clamps etc. (all in C.P. Brass) including cutting holes and making good the same: |  |  |  |  | |  |
|  | (a) 15 mm nominal bore | 9.00 | Metre |  |  | |  |
| 119 | Providing and fixing vitreous China wash basin with single hole for pillar tap with C.I. or M.S. brackets painted white including cutting holes and making good the same but excluding fittings: |  |  |  |  | |  |
|  | (a) Flat back: |  |  |  |  | |  |
|  | (i) 550 mm x 400 mm | 11 | Each |  |  | |  |
| 120 | Providing and fixing laboratory sink with C.I. or M.S. brackets painted white including cutting holes in walls and making good the same but excludiing fittings including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (a) Vitreous China: |  |  |  |  | |  |
|  | (i) 500 mm x 350 mm x 150 mm | 2 | Each |  |  | |  |
| 121 | Providing and fixing C. P. Brass Waste for wash basin or sink: |  |  |  |  | |  |
|  | (a) 40 mm dia | 15 | Each |  |  | |  |
| 122 | Providing and fixing C. I. Union for for wash basin or sink: |  |  |  |  | |  |
|  | (a) 40 mm dia | 15 | Each |  |  | |  |
| 123 | Providing and fixing C. P. Brass S trap for wash basin or sink: |  |  |  |  | |  |
|  | (a) 40 mm dia | 10 | Each |  |  | |  |
| 124 | Providing and fixing C. P. Bottle trap for wash basin or sink: |  |  |  |  | |  |
|  | (a) 40 mm dia | 13 | Each |  |  | |  |
| 125 | Providiing and fixing 100 mm sand cast iron grating for gully, floor or Nahni Trap including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 15 | Each |  |  | |  |
| 126 | Providing and fixing 600 mm x 450 mm bevelled edge mirror of superior glass mounted on 6 mm thick A.C. sheet or plywood sheet and fixed to wooden plugs with C.P. Brass screws and washers including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 11 | Each |  |  | |  |
| 127 | Providing and fixing C.P. brass Towell rail complete with C.P. brass brackets fixed to wooden plugs with C.P. brass including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (i) 750 mm x 20 mm | 3 | Each |  |  | |  |
| 128 | Providing and fixing Vitreous China soap trays including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (i) Recessed soap tray 150 mm x 150 mm size. | 12 | Each |  |  | |  |
| 129 | Providing and fixing C. P. Brass shower rose with 15 mm or 20 mm inlet including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 5 | Each |  |  | |  |
| 130 | Providing and fixing Vitreous China Robe hook including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 21 | Each |  |  | |  |
| 131 | Providing and fixing Vitreous China Division Plate for Urinals 600 mm x 300 mm including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 7 | Each |  |  | |  |
| 132 | Providing and fixing 15 mm dia C.P. brass Bib tap with Capstan head including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 30 | Each |  |  | |  |
| 133 | Providing and fixing C.P. brass Pillar tap 15 mm dia with Capstan head including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 13 | Each |  |  | |  |
| 134 | Providing and fixing Brass stop cocks including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (a) 15 mm dia | 10 | Each |  |  | |  |
|  | (b) 32 mm dia | 4 | Each |  |  | |  |
|  | (c) 40 mm dia | 4 | Each |  |  | |  |
| 135 | Providing and fixing CP Brass Angle valve 15 mm without nuts and pipes including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 64 | Each |  |  | |  |
| 136 | Providing and fixing 15 mm mixer for kitchen sink with top/bottom winging spout including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 2 | Each |  |  | |  |
| 137 | Providing and fixing one hole basin mixing faucet. | 11 | Each |  |  | |  |
| 138 | Providing and fixing wall maxing Faucet for shower and Bath with overhead pipe and bath shower including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 5 | Each |  |  | |  |
| 139 | Providing and fixing wall bath shower including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 5 | Each |  |  | |  |
| 140 | Providing and fixing15 mm spout with Aerator including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 6 | Each |  |  | |  |
| 141 | Providing and fixing 20 mm spout with Aerator including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 6 | Each |  |  | |  |
| 142 | Painting G.I. Pipes and fittings with two coats of anticorrosive bitumastic paint of approved quality: |  |  |  |  | |  |
|  | (a) 32 mm diameter pipe | 28.00 | Metre |  |  | |  |
|  | (b) 40 mm diameter pipe | 24.00 | Metre |  |  | |  |
| 143 | Providing and filling sand all-round the G.I. Pipe in external work including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (e) 40 mm diameter pipe | 24.00 | Metre |  |  | |  |
| 144 | Providing and fixing white glazed fireclay stall urinal with automatic C.I. Flushing cistern (of approved make ) with fittings R.S. or C.I. Brackets standard size C.P. brass flush pipe spreaders with unions and clamps (all in C.P. brass) C.I. Trap with outlet grating and other coupling in C.P. brass including painting of cistern and fittings, cutting and making good the walls and floors where required including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (a) Single stall Urinal with 5 litres C.I. automatic flushing cistern. | 1.00 | Each |  |  | |  |
|  | (b) Range of Two stall Urinals with 10 litres C.I. automatic flushing cistern. | 1.00 | Each |  |  | |  |
|  | (c) Range of Three stall Urinals with 15 litres C.I. automatic flushing cistern. | 2.00 | Each |  |  | |  |
| 145 | Providing and fixing 15 mm nominal bore P.V.C. Connection pipe with brass unions 300 mm Length including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 5.00 | Each |  |  | |  |
| 146 | Providing and fixing 15 mm nominal bore brass ball valve (horizontal plunger type) including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 15.00 | Each |  |  | |  |
| 147 | Providing and fixing ferrule including boring and taping the main including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (a) 15 mm nominal bore | 10.00 | Each |  |  | |  |
|  | (b) 20 mm nominal bore | 15.00 | Each |  |  | |  |
|  | (c) 25 mm nominal bore | 10.00 | Each |  |  | |  |
|  | (d) 32 mm nominal bore | 12.00 | Each |  |  | |  |
|  | (e) 40 mm nominal bore | 8.00 | Each |  |  | |  |
| 148 | Painting two coats on G.I. pipes and fittings with aluminium paint over already mixed priming coat both of approved quality for new work including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (a) 15 mm | 10.00 | Each |  |  | |  |
|  | (b) 20 mm | 15.00 | Each |  |  | |  |
|  | (c) 25 mm | 10.00 | Each |  |  | |  |
|  | (d) 32 mm | 12.00 | Each |  |  | |  |
|  | (e) 40 mm | 8.00 | Each |  |  | |  |
| 149 | Providing and fixing 2000 litres net capacity PVC water storage tank of ISI : 12701 marked, G.I. inlet and outlet connection, 15mm nominal bore ball valve and mosquito proof PVC cover with locking arrangement including hoisting up to all heights above ground level including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 2.00 | Each |  |  | |  |
| 150 | Providing and fixing square mouth traps stoneware gully trap grade 'A" 180mm x 150mm P or R type complete with CI grating , brick masonary chamber in cement mortar 1:5 and water tight CI cover with frame of size 300mm x 300mm (inside) the weight of the cover to be not less than 4.53 kg and thr frame to be not less than 2.72 kg. including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 12.00 | Each |  |  | |  |
| 151 | Providing and fixing round mouth traps stoneware gully trap grade 'A" 150mm x 150mm S type complete with CI grating , brick masonary chamber in cement mortar 1:5 and water tight CI cover with frame of size 300mm x 300mm (inside) the weight of the cover to be not less than 4.53 kg and thr frame to be not less than 2.72 kg. including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. | 6.00 | Each |  |  | |  |
| 152 | Providing and laying (to level or slope) and jointing with stiff mixture of cement mortar in proportion 1:2 (1 cement: 2 fine sand) reinforced concrete light duty non- pressure pipes I.S class NP2 or P of the following internal diameters with collars and butt ends prepared for collar joints including testing of joints complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
| (i) | 100 mm | 10.00 | Metre |  |  | |  |
| (ii) | 150 mm | 34.00 | Metre |  |  | |  |
| (iii) | 250 mm | 100.00 | Metre |  |  | |  |
| (iv) | 450 mm | 43.00 | Metre |  |  | |  |
|  |  |  |  |  |  | |  |
| 153 | Constructing manhole with RCC top slab in 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) inside plastering 15 mm thick with cement mortar 1:3 (1 cement : 3 sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete including curing and testing including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
| (i) | Inside size 800mm x 800mm and 500 mm deep including C.I. cover with frame (light duty single seal:pattern I) 455x610 mm internal dimensions total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
| (a) | with 230 mm thick walls of brick masonary using common burnt clay building bricks in cement mortar 1:3 (1 cement: 3 sand) | 13.00 | Each |  |  | |  |
| (ii) | Inside size 800mm x 800mm and 1.0 metre deep including C.I. cover with frame (light duty single seal:pattern I) 455x610 mm internal dimensions total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg): |  |  |  |  | |  |
| (a) | with 230 mm thick walls of brick masonary using common burnt clay building bricks in cement mortar 1:3 (1 cement: 3 sand) | 13.00 | Each |  |  | |  |
| (iii) | Inside size 1200mm x 900mm and 1.0 metre deep including C.I. cover with frame (medium duty single seal:pattern I) 500mm internal dia total weight of cover and frame to be not less than 117 kg (weight of cover 58 kg and weight of frame 58 kg): |  |  |  |  | |  |
| (a) | with 230 mm thick walls of brick masonary using common burnt clay building bricks in cement mortar 1:3 (1 cement: 3 sand) | 4.00 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
| 155 | Making connections of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 ( 1cement:2 sand: 4 graded stone aggregate 20mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement: 3 sand) finished with a floating coat of neat cement and making necessary channels with cement concrete 1:2:4 ( 1cement:2 sand: 4 graded stone aggregate 20mm nominal size) for the drain complete including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
|  | (i) for pipes 100mm to 150 mm internal dia/ nominal size. | 4.00 | Each |  |  | |  |
|  | (ii) for pipes 250mm to 300 mm internal dia/ nominal size. | 15.00 | Each |  |  | |  |
| 156 | Providing and laying cement concrete 1:5:10 (1 cement : 5 coarsesand : 10 graded stone aggregate 40mm nominal size) upto haunches of SW pipes including bed concrete as per standard CPWD design including carriage of materials upto all leads and lifts and as per the direction of Engineer-in-Charge. |  |  |  |  | |  |
| a | 110mm dia. pipe | 120.00 | Metre |  |  | |  |
| b | 160 mm diameter pipe | 24.00 | Metre |  |  | |  |
| c | 250 mm diameter RCC pipe | 88.00 | Metre |  |  | |  |
|  | **PVC INSULATED HEAT RESISTANT FLAME RETARDANT AND LOW SMOKE (HRFRLS)COPPER CONDUCTOR WIRING IN PVC CONDUIT.** |  |  |  |  |  |  |
| 157 | Wiring for light point / fan point / exhaust fan / call bell point with 1.5 Sq. mm. PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed PVC conduit with modular switch, modular plates, suitable G.I. box and earthing the light point with 1.5 Sq.mm. HRFRLS/PVC insulated single core copper conductor cable as required. |  |  |  |  | |  |
| (i) | Group C | 160.00 | Point |  |  | |  |
|  |  |  |  |  |  | |  |
| 158 | Wiring for twin control light point with 1.5 Sq. mm. PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed PVC conduit, with 2-way modular switch, modular plates, suitable G.I. box and earthing the light point with 1.5 Sq.mm. HRFRLS/PVC insulated single core copper conductor cable as required. |  |  |  |  | |  |
| (i) | Group C | 3.00 | Point |  |  | |  |
|  |  |  |  |  |  | |  |
| 159 | Wiring for light plug with 2x1.5 Sq. mm. PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed PVC conduit along with 1 No.1.5 Sq.mm. HRFRLS/PVC insulated single core copper conductor cable for earthing as required. | 1400.00 | Meter |  |  | |  |
|  |  |  |  |  |  | |  |
| 160 | Wiring for light plug with 2x4 Sq. mm. PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed PVC conduit along with 1 No.4 Sq.mm. HRFRLS/PVC insulated single core copper conductor cable for earthing as required. | 1500.00 | Meter |  |  | |  |
|  |  |  |  |  |  | |  |
| 161 | Wiring for light plug with 4x4 Sq. mm. PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed PVC conduit along with 2 No.4 Sq.mm. HRFRLS/PVC insulated single core copper conductor cable for earthing as required. | 100.00 | Meter |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **WIRING FOR CIRCUIT / SUB-MAINS IN PVC CONDUIT** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 162 | Wiring for circuit/sub-main with following size PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed PVC conduit along with 1 No. HRFRLS/PVC insulated single core copper conductor cable of same size for earthing as required. |  |  |  |  | |  |
| (i) | 2 x 1.5 Sq.mm. | 500.00 | Meter |  |  | |  |
| (ii) | 2 x 6 Sq.mm. | 100.00 | Meter |  |  | |  |
|  |  |  |  |  |  | |  |
| 163 | Wiring for circuit / sub-main with 4x10 Sq. mm. PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed PVC conduit along with 2 No.10 Sq.mm. (4x10+2x10) HRFRLS/PVC insulated single core copper conductor cable for earthing as required. | 80.00 | Meter |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **PVC INSULATED HEAT RESISTANT FLAME RETARDANT AND LOW SMOKE (HRFRLS)COPPER CONDUCTOR WIRING IN EXISTING CONDUIT.** | | |  |  |  |  |
|  | **SUPPLYING AND DRAWING OF FR-FLEXIBLE,NETWORKING CABLE** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 164 | Supplying and drawing following pair of Fire Retardant, PVC insulated 0.5 sq.mm. (FR-Flexible) copper conductor, flat, unarmoured, telephone cable in existing surface / recessed, steel / PVC conduit as required. |  |  |  |  | |  |
| (i) | 2 Pair | 300.00 | Meter |  |  | |  |
|  |  |  |  |  |  | |  |
| 165 | Supplying and drawing LAN cable CAT 5E, solid copper conductor protected with PVC sheath in the existing surface / recessed, steel / PVC conduit as required. | 150.00 | Meter |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **SUPPLYING AND FIXING PVC CONDUITS** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 166 | Supplying and fixing of following sizes of PVC conduit along with the accessories in surface / recess including cutting the wall and making good the same in case of recessed conduit as required:- |  |  |  |  | |  |
| (i) | 20 mm. dia | 500.00 | Meter |  |  | |  |
| (ii) | 25 mm. dia | 200.00 | Meter |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **SUPPLYING AND FIXING METAL BOXES** |  |  |  |  | |  |
|  | **S/F Modular G.I. boxes with cover plate:** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 167 | Supplying & fixing of G.I. modular boxes of following sizes along with modular base and cover plate for modular switches in recess as required:- |  |  |  |  | |  |
| (i) | 2 modules (78 mmx78 mmx50 mm) | 60 | Each |  |  | |  |
| (ii) | 4 modules (140 mmx78 mmx50 mm) | 35 | Each |  |  | |  |
| (iii) | 6 modules (205 mmx78 mmx50 mm) | 5 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **ERECTION OF FITTINGS AND ACCESSORIES** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 168 | Supplying and fixing following rating Modular switch /socket in the existing switch box / cover plate including connections etc. as required. |  |  |  |  | |  |
| (i) | S.P. 5/ 6 Amps one way Modular switch. | 60 | Each |  |  | |  |
| (ii) | S.P. 5/ 6 Amps two way Modular switch. | 6 | Each |  |  | |  |
| (iii) | S.P. 15/ 16 Amps one way Modular switch. | 60 | Each |  |  | |  |
| (iv) | 5 pin, 5/ 6 Amps Modular socket outlet. | 90 | Each |  |  | |  |
| (v) | 6 pin,15/16 Amps Modular socket outlet. | 40 | Each |  |  | |  |
| (vi) | Telephone socket outlet, Modular | 10 | Each |  |  | |  |
| (vii) | *Data outlet* | *18* | *Each* |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **MODULAR BASE AND COVER PLATE :-** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 169 | Supplying & fixing following size modular base and cover plate on the existing modular metal boxes as required:- |  |  |  |  | |  |
| (i) | Modular base and cover plate, 2 module | 60 | Each |  |  | |  |
| (ii) | Modular base and cover plate, 4 module | 35 | Each |  |  | |  |
| (iii) | Modular base and cover plate, 6 module | 5 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
| 170 | Supplying & fixing Modular blanking plate on the existing modular metal box as required:- | 10 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
| 171 | Supplying and fixing stepped type Modular fan regulator on the existing modular box including making connections etc. as required. | 25 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
| 172 | Supplying and fixing ceiling rose on the existing junction box / wooden block including connections etc. as required. | 10 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
| 173 | Carriage of ceiling fan and regulator/exhaust fan from store to site. | 25 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
| 174 | Numbering of ceiling fan and regulator/ exhaust fan /fluorescent fitting as required:- | 35 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
| 175 | Extra for fixing the louvers/shutters complete with frame for exhaust fans of all sizes as required:- | 10 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **METAL BOARDS FOR SWITCH GEAR MOUNTINGS** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 176 | Supplying and erection of following depth sheet metal cubical pedestal of suitable dimensions with plus-minus 5 cm variation, made from 1.6 mm thick M.S. sheet duly fabricated in a segregated manner for housing of switch fuse units, by welding each compartment on five sides & front side hinged, complete with locking arrangement, with sufficient No. vertical and horizontal intermediate switchgear housing compartments. The cubical pedestal shall have cable entry box at one or two sides, with epoxy powder coated approved paint and bonding to the existing earth etc. The same shall be erected in the 1:2:4 cement concrete plat-form of suitable dimensions 15 cm high from ground level and 45 cm thick. The cubical pedestal shall be 15 cm from the top of cement concrete plat-form:- |  |  |  |  | |  |
| (i) | 300 mm deep (nominal) | 5 | Sqm. of face area |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **SUPPLYING AND FIXING OF BUS-BARS IN THE EXISTING CHAMBER / CUBICAL** |  |  |  |  | |  |
|  | **ALUMINIUM BUS-BARS:-** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 177 | Supplying and fixing Aluminum alloy or wrought aluminium strip bus-bars, suitable for 200 Amp. 415 volts capacity 4 No. each of cross-sectional area (38mmx6mm), in the existing enclosure or cubical panel with all accessories including connections etc. as required:- | 1.50 | R.Mtr. |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **COPPER BUS-BARS:-** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 178 | Supplying and fixing copper strip bus-bars suitable for 100 Amp. 240 volts capacity 2 No. each of cross-sectional area (25.4mmx3.17mm),in the existing enclosure with all accessories including connections etc. as required:- | 1.20 | R.Mtr. |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **MOULDED CASE CIRCUIT BREAKERS AND AIR CIRCUIT BREAKERS** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 179 | Providing and fixing following rating and breaking capacity MCCB in the existing cubical panel board including drilling holes in the cubicle panel, making connections, etc. as required. |  |  |  |  | |  |
| (i) | 40/100 Amp - 16 KA | 2 | Each |  |  | |  |
| (ii) | 125 Amp - 16 KA | 1 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **MINIATURE CIRCUIT BREAKERS / RESIDUAL CURRENT CIRCUIT BREAKERS** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 180 | Supplying and erection of 6 amps. to 32 amps. rating, 10 KA breaking capacity, 240 volts, 'C' curves, miniature circuit breaker of following poles in the existing MCB DB complete with connections etc. as required:- |  |  |  |  | |  |
| (i) | Single pole. Cat-B | 18 | Each |  |  | |  |
| (ii) | Double pole. Cat-B | 7 | Each |  |  | |  |
| (iii) | Triple pole. Cat-B (TPN) | 5 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
| 181 | Supplying and fixing following rating, double pole (single phase & neutral) 240 volts, residual current circuit breaker (RCCB), having a sensitivity current up to 300 miliampers in the existing MCB DB complete with connections, testing and commissioning etc. as required. |  |  |  |  | |  |
| (i) | 25 Amps. Cat-A | 1 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
| 182 | Supplying and fixing 20 Amps, 240 volts, SPN industrial socket outlet, 2-pole & earth, metal enclosed plug top, sheet steel outlet, 2-pole & earth, metal enclosed plug top, sheet steel enclosure, suitable to accommodate a 20 Amp SPN-MCB/DP, on surface or in recess, with chained metal cover for the socket outlet, complete with connections, testing and commissioning etc. as required. | 9 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **MCB DISTRIBUTION BOARDS** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 183 | Supplying and fixing of following way, single pole and neutral sheet steel MCB distribution board, 240 volts, on surface / recess, complete with tinned copper bus- bar, wireset, neutral link, earth bar, din-bar, detachable gland plate, blanking plate, cable, identification labels interconnections, phosphatized and powder painted, including earthing etc. as required:- |  |  |  |  | |  |
| (i) | Double door -8 way | 3 | Each |  |  | |  |
| (ii) | Double door -12 way | 2 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
| 184 | Supplying and fixing of following way triple pole and neutral, sheet steel MCB distribution board, 415 volts, on surface / recess, with provision to mount 8 module incomer, 2 module sub-incomer and SP MCBs as outgoing, complete with tinned copper bus- bar, wire-set, neutral link, earth bar, dinbar, detachable gland plate, cable, identification labels interconnections, phosphatized and powder painted, including earthing etc. as required:- |  |  |  |  | |  |
| (i) | Double door -2 x 6 way (8+6+18) horizontal type | 2 | Each |  |  | |  |
| (ii) | Double door -2 x 8 way (8+6+24) horizontal type | 1 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **EARTHING AND LOOP EARTHING** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 185 | Earthing with G.I earth pipe 4.5 mtr. long and 40mm dia, including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. ( but without charcoal or coke and salt ) complete as required. ( for Lightning Conductor) | 3 | Set |  |  | |  |
|  |  |  |  |  |  | |  |
| 186 | Extra for using salt and charcoal for pipe earth electrode complete as required. | 3 | Set |  |  | |  |
|  |  |  |  |  |  | |  |
| 187 | Providing and fixing 6 SWG (4 mm dia.) G.I. wire on surface or in recess for loop earthing as required. | 10.00 | Meter |  |  | |  |
|  |  |  |  |  |  | |  |
| 188 | Providing and fixing 6 SWG (4 mm dia.) G.I. wire on surface or in recess for loop earthing along with existing surface/recessed conduit/sub-main wiring/cable as required. | 150.00 | Meter |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **LIGHTING CONDUCTORS** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 189 | Providing and fixing of lightning conductor finial, made of 25 mm dia. 300 mm long G.I. tube, having single prong at top, with 85 mm dia 6 mm thick copper base plate including holes etc. complete as required. | 2 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
| 190 | Riveting, sweating and soldering of copper/ G.I. tape ( with another copper/G.I. tape, base of the finial or any other metallic object) as required. | 25 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
| 191 | Supplying and fixing G.I. tape 20mmx3mm thick on parapet or surface of wall for lightning conductor as required ( for vertical run) | 20.00 | Meter |  |  | |  |
|  |  |  |  |  |  | |  |
| 192 | Supplying and fixing G.I. tape 20mmx3mm thick on parapet or surface of wall for lightning conductor as required ( for horizontal run) | 200.00 | Meter |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **UNCLASSIFIED ITEMS** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 193 | Providing and fixing M.V.danger notice plate of 200 mm x 150 mm made of mild steel at least 2 mm thick, and vitreous enameled white on both sides and with inscription in signal red color on front side as required. | 2 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **ALUMINIUM CONDUCTOR PVC INSULATED ELECTRIC ARMOURED CABLES** |  |  |  |  | |  |
|  | **PVC INSULATED ARMOURED CABLES (UNDER GROUND)** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 194 | Providing and laying of one No. aluminium conductor, PVC insulated and PVC sheathed, armoured/XLPE power cable, working voltage 1100 volts grade direct in ground; to be laid 1 meter below the ground level including excavation sand cushioning, protective covering and refilling the trench etc. of the required size:- |  |  |  |  | |  |
| (i) | Armoured cable 4 sq. mm (twin core) | 350.00 | R.Mtr. |  |  | |  |
| (ii) | Armoured cable 6 sq. mm (twin core) | 15.00 | R.Mtr. |  |  | |  |
| (iii) | Armoured cable 16 sq. mm (four core) | 50.00 | R.Mtr. |  |  | |  |
| (iv) | Armoured cable 35 sq. mm (3.5 core) | 50.00 | R.Mtr. |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **PVC INSULATED ARMOURED CABLES (ON SURFACE)** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 195 | Providing, laying and fixing of one No. aluminium conductor, PVC insulated and PVC sheathed, armoured/XLPE power cable, working voltage 1100 volts grade on surface etc. of the required size:- |  |  |  |  | |  |
| (i) | Armoured cable 4 sq. mm (twin core) | 30.00 | R.Mtr. |  |  | |  |
| (ii) | Armoured cable 6 sq. mm (twin core) | 5.00 | R.Mtr. |  |  | |  |
| (iii) | Armoured cable 16 sq. mm (four core) | 15.00 | R.Mtr. |  |  | |  |
| (iv) | Armoured cable 35 sq. mm (3.5 core) | 10.00 | R.Mtr. |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **PROVIDING AND INSTALLATION OF ELECTRIC WATER HEATER (GEYSERS)** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 196 | Providing and installation of stationary storage type Electric water heater (Geyser) of various sizes by means of Expansion-bolts with nuts and washers, including embedding of expansion-bolts in the wall, providing and fixing of Nonreturn valve, Dead weight safety valve, 2 No C.P. connection rods 18" long, making good the damages, electrical connections, safety valve connections, testing and commissioning etc. as required:- |  |  |  |  | |  |
| (i) | 10 Liter capacity water heater (Cat-A) | 5 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **PROVIDING AND INSTALLATION OF CEILING / EXHAUST FAN** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 197 | Providing, Installation, testing and commissioning of ceiling fan with regulator, including wiring the down rods of standard length (up to 30 cm) with 16/0.20 mm twin twisted flexible, cotton braided, copper cable, including providing and fixing phenolic laminated sheet cover on the fan box and earthing etc. as required:- |  |  |  |  | |  |
| (i) | Ceiling Fan 1200 mm sweep, Category-A | 25 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
| 198 | Providing and installation of exhaust fan of following sizes in the existing opening, including making the hole to suit the size of the above fan, making good the damages, connections, testing and commissioning etc. as required:- |  |  |  |  | |  |
|  | Exhaust Fan, Heavy duty, 300 mm sweep | 12 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **PROVIDING AND INSTALLATION OF LED LUMINAIRES** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 199 | Providing and fixing following type of surface mounting with white finished housing powder coated Square and Round type LED Luminaire complete with all accessories, connections, testing and commissioning etc. as required. |  |  |  |  | |  |
| (i) | LCDSPL-R-12W-CDL (Crompton) | 21 | Each |  |  | |  |
| (ii) | LCDSPL-S-18W-CDL (Crompton) | 71 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
| 200 | Providing and fixing following type of recess mounting with high power factor Square and Round type LED Luminaire complete with all accessories, connections, testing and commissioning etc. as required. |  |  |  |  | |  |
| (i) | LSCRM-12W-CDL/NW/WW (Crompton) | 3 | Each |  |  | |  |
| (ii) | LSCSM-18W-CDL/NW/WW (Crompton) | 27 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **SUPPLYING AND FIXING OF WALL BRACKETS / CEILING FITTING** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 201 | Supplying and fixing of fancy wall bracket containing thread type CFL lamp holder (s) of all sizes and shapes, complete with all accessories but excluding CFL lamp including making connections, testing etc. as required. |  |  |  |  | |  |
| (i) | Fixed type wall bracket 150 dia, single lamp.(Category-A) | 10 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
| 202 | Supplying and fixing of Bulk head fitting of all sizes and shapes, containing one no. thread type CFL lamp holder(s) complete with all accessories but excluding CFL lamp including making connections, testing etc. as required. |  |  |  |  | |  |
| (i) | Bulk head fitting, CFL type (Category-A) | 10 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
|  | **SUPPLYING AND ERECTION OF POLES** |  |  |  |  | |  |
|  |  |  |  |  |  | |  |
| 203 | Supplying and erection of Galvanized Iron (G.I.) pipe pole 'A' quality of suitable length and dia. 4.47 mm thickness, including fixing up to a given depth below G/L.The hole of excavation about 30 cm dia. and given depth to be filled in up to 15 cm below G/L with 1:3:6 cement concrete and there above plinth with 1:2:4 cement concrete up to a height of 45 cm from G/L. The radial thickness of the plinth above G/L should not be less than 6.35 cm and sufficient to completely flush a 180 mmx100 mmx 45 mm deep, glass filled Nylan F.R. grade box for housing a 16 Amp. MCB, the outer surface of the plinth to be finished with 1:3 cement plaster 6 mm thick, the fuse-box shall have a water tight cover, including painting of pole with two coats of approved color, brand and manufacture of paint over a priming coat complete in all respects as required:- |  |  |  |  | |  |
| (i) | 4 Meter long having nominal bore dia. 65 mm planting depth 80 cm with pit depth 95 cm. | 3 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
| 204 | Supplying and fixing of integral CFL Post Top Lantern of following capacity, cast aluminium spigot, spun aluminium canopy, opal acrylic diffuser, complete with all accessories but excluding CFL lamp including making connections, testing etc. as required. |  |  |  |  | |  |
| (i) | Gate post top lantern - CFL 26 watt. | 5 | Each |  |  | |  |
|  |  |  |  |  |  | |  |
| (i) | **TOTAL OF BUILDING ELECTRICAL WORKS in Rupees** |  |  |  |  | |  |
| 205 | Air Quality - one location at construction site, thrice a year ( one sample pre construction and 6 samples during construction phase; total 7 samples) | 7 | Sample |  |  | |  |
| 206 | Water Quality- One ground water sample from construction site (one sample pre construction and 6 samples during construction phase; total 7 samples) | 7 | Sample |  |  | |  |
| 207 | Noise Quality-One location at project site (one sample pre construction and 6 samples during construction phase; total 7 samples) | 7 | Sample |  |  | |  |
| 208 | Air Quality -one location at CLC site, during the Defect Liability Period | 3 | Sample |  |  | |  |
| 209 | Water Quality -one ground water sample at CLC site, during Defect Liability Period. | 3 | Sample |  |  | |  |
| 210 | Noise Quality- one location at CLC site, during Defect Liability Period. | 3 | Sample |  |  | |  |
|  | **Grand Total** |  |  |  |  | |  |