

Bill of Quantity

Name of work: Upgradation of exterior features with aluminium windows of main building and miscellaneous civil work at DSC, Purulia.

Sl. No.	Description of item	Qty.	Unit	Rate	Amount
1.0	Earth work in excavation of foundation trenches or drains, in all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing, spreading or stacking the spoils within a lead of 150 m. as directed. The item includes necessary trimming the sides of trenches, levelling, dressing and ramming the bottom, bailing out water as required complete. Depth of excavation not exceeding 1,500 mm.	5	Cum.	119.27	596.35
2.0	Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete. (Payment to be made on the basis of measurement of finished quantity of work) with earth obtained from excavation of foundation.	1	Cum.	77.54	77.54
3.0	Dismantling all types of masonry excepting cement concrete plain or reinforced, stacking serviceable materials at site and removing rubbish as directed within a lead of 750 m & upto at any level.	5	Cum	447.00	2235.00
4.0	Dismantling all types of plain cement concrete works (upto 150mm thick), stacking serviceable materials at site and removing rubbish as directed within a lead of 750 m & upto at any level.	5	Cum	939.00	4695.00
5.0	Repairing of crack in wall/ roof by cement grouting (1:2) including widening the crack on the surface (into V-section) cleaning and packing the same with cement mortar (1:2) and finishing off to match with adjacent surface. (Cement-69 Kg/100 m) at any height and any level.	400	Mtr.	13.05	5220.00
6.0	Taking out existing M.S. or W.I. Grills,windows from wooden frame/ Brick wall / mother structure at any height and any level including cutting lugs from masonry wall and mending good the damages & stacking all the dismantled materials as directed by Engineer-In-Charge within the campus of DSC Purulia.	200	Sqm.	85.00	17000.00
7.0	Stripping off worn out plaster and raking out joints of walls, ceilings etc at any height and any level including removing rubbish within a lead of 750 m as directed.	250	Sqm.	19.00	4750.00
8.0	Single brick flat soling (thickness 75 mm) with picked Jhama bricks including preparation of bed as necessary with brick joints properly filled in and packed with powdered earth and including necessary cushion of similar material below the soling (and in between layers when more than one layer is used) complete as per direction.	30	Sqm.	255.00	7650.00
9.0	Filling in foundation or plinth by fine sand in layers not exceeding 150 mm as directed and consolidating the same by thorough saturation with water, ramming complete including the cost of supply of sand. (Payment to be made on measurement of finished/ compacted quantity)	15	Cum.	487.41	7311.15
10.0	Brick work with 1st class bricks (Class designation 75) in cement mortar (1:6) in superstructure at any height and any level.	2	Cum.	4,466.00	8932.00
11.0	125mm thick brick work with 1st class bricks in cement mortar (1:4) in any floor.(Straight or Zig-zag brick work .In case of zig-zag brick work centre line length of the wall shall be considered for measurement and no extra cost shall be added.)	20	Sqm.	592.00	11840.00
12.0	Plaster (to wall, floor, ceiling etc.) with sand and cement mortar including rounding off or chamfering corners as directed and raking out joints including throating, nosing and drip course, scaffolding/staging where necessary at any height. With 1:6 cement mortar,20 mm thick plaster.	200	Sqm.	153.00	30600.00
13.0	Neat cement punning about 1.5mm thick in wall, dado, window, sill, floor etc. NOTE: Cement 0.152 cu.m per100 sq.m.	100	Sqm.	34.00	3400.00
14.0	Providing and laying in position Ordinary Cement concrete of specified grade with graded stone chips (20 mm nominal size) of Pakur variety excluding the cost of centering, shuttering and reinforcement, if any, in ground floor as per relevant IS codes. 1:1½:3 (1 Cement: 1½ coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size)	4	Cum.	6,757.20	27028.80
15.0	Hire and labour charges for shuttering with centering and necessary staging upto 4 m using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete slabs, beams, columns, lintels, curved or straight including fitting, fixing and striking out after completion of works. 25mm to 30mm thick wooden shuttering as per decision and direction of Engineer-in-charge.	10	Sqm.	324.00	3240.00
16.0	Reinforcement for reinforced concrete work in all sorts of structures including distribution bars, stirrups, binders etc. including supply of rods, initial straightening and removal of loose rust (if necessary), cutting to requisite length, hooking and bending to correct shape, placing in proper position and binding with 16 gauge black annealed wire at every intersection, complete as per drawing and direction. For works in foundation and upto roof of ground floor/ upto 4 m using Tor/HYSD steel.	0.50	MT	68,053.00	34026.50

17.0	Cement concrete (1:1½:3) with graded stone chips 5.6 mm size with hexagonal/ square mesh wire netting, I.R.C. fabric mesh or X.P.M. fitted and fixed after tying the existing reinforcement on concrete without distributing the same and with proper scarping and cleaning the reinforcement and disturbed concrete with wire brush etc. after applying a coat of cement including the cost of wire netting I.R.C or X. P. M. & cost of all handling and scaffolding complete as per direction of Engineer-in -charge. Avg 40mm thick. (This item will be done only after specific instruction of EIC.)	120	Sqm.	570.00	68400.00
18.0	Providing & mixing polymer based water resistant bonding agent like Dr. Fixit 101 LW+ or equivalent in cement plaster as per manufacture's specification and direction of EIC.	20	Lit.	375.00	7500.00
19.0	Cleaning the exposed reinforcement preferably upto full diameter by wire brush, applying two coats of polymer based rust removing compound left for 24 hours, removing the coating and then applying two (2) coats of polymer modified anti corrosive protective coating formulated to inhibit the corrosion of reinforcement as per manufacturer's specification				
19.1	Providing & applying rust removing compound (Sika Rust off 100 or equivalent).	15	Kg	345.00	5175.00
19.2	Providing & applying polymer modified anti corrosive protective coating (Sika Rustop or equivalent).	20	Kg	271.00	5420.00
20.0	Supplying, fitting & fixing granite slab 15mm to 18mm thick in floor, lobby, stair, landing, window sill and trends etc. over 20mm (avg) thick base of cement mortar (1:2) laid with white cement slurry @ 4.40Kg per Square meter before placing of granite and jointed with white cement slurry @ 2.0 Kg per square meter with necessary pigments and complete as per direction of Engineer-in-charge including cost of all materials, labours, curing and roughening of concrete surface complete. Upto 2nd floor. Area of each Granite slab 0.6 to 1.0 Square meter.	10	Sqm.	2,764.00	27640.00
21.0	Providing edge moulding to granite slabs in counters, vanities, window sill etc. including machine polishing to edge to give high gloss finish all complete as per design approved by Engineer - in - Charge.	70	Rm	125.00	8750.00
22.0	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / panelling, C.P. brass / stainless steel screws all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing & panelling to be paid for separately). Rate includes, Filling the gap in between aluminium frame & adjacent RCC/ Brick/Stone work by providing weather proof silicon/ epoxy sealant over backer rod of approved quality. (for payment purpose only weight of Aluminium sections shall be considered excluding the fixing accessories such as screws, nuts, bolts, fasteners, EPDM rubber/ neoprene gasket etc.). Approved Make of Aluminium section: Hindalco, Zindal.				
22.1	For fixed portion: Powder coated aluminium (minimum thickness of powder coating 50 micron)	200	Kg	405.00	81000.00
22.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing and fittings wherever required including the cost of EPDM rubber / neoprene gasket etc whatever required. Powder coated aluminium (minimum thickness of powder coating 50 micron)	1550	Kg	490.50	760275.00
23.0	Providing and fixing Supplying 250mm long Heavy Type Aluminium window Peg Stay to windows/ ventilators with necessary welding and machine screws etc. complete.	10	Each	55.00	550.00
24.0	Supplying & fixing Zinc powdered coated star lock for aluminium sliding window.	30	Each	40.00	1200.00
25.0	Supplying & fixing SS roller bearing for sliding window.	50	Each	50.00	2500.00
26.0	Supplying and fixing Heavy Type stainless steel friction hinge with ss screws etc complete for casement window as per approved brand as directed by Engineer- in -charge. 300 mm long	665	each	332.00	220780.00
27.0	Supplying, fitting & fixing Heavy Duty Aluminium Handle (EBCO Type) Colour anodized.	340	Each	105.60	35904.00
28.0	Filling the gap in between aluminium frame & adjacent RCC / Brick/ Stone work by providing weather silicon sealant over 6mm dia backer rod of approved quality as per direction of Engineer-in-Charge complete. The work is to be executed on the inside or out side wall upto any height from ground level. The rate is inclusive of materials, labour, scaffolding etc. complete. Make: Dr. Fixit, Wacker, Sika, M.Seal.	60	Per Cartridge	240.00	14400.00
29.0	Supplying & fixing 5mm thick bubble free float glass (coloured / tinted / smoke) of approved make and brand conforming to IS: 2835-1987.	200	Sqm	908.00	181600.00
30.0	Supplying, fitting & fixing UPVC pipes B- Type and fittings conforming to IS:13592-1992 with all necessary clamps nails, including making holes in walls, floor etc. cutting trenches in any soil through masonry concrete structures etc if necessary and mending good damages including joining with jointing materials (Spun Yarn, Valamoid/Bitumen/M-Seal etc) complete. (Make: Supreme, Oriplast or equivalent)				
30.1	UPVC Pipe: 75mm dia.	10	Meter	241.00	2410.00
30.2	UPVC Pipe: 110mm dia.	60	Meter	349.00	20940.00
30.3	UPVC Pipe: 160mm dia.	20	Meter	546.00	10920.00
	UPVC Fittings				
30.4	Plain Tee: 75 mm dia.	5	Each	46.00	230.00
30.5	Plain Tee: 110 mm dia.	2	Each	85.00	170.00
30.6	Plain Tee: 160 mm dia.	2	Each	262.00	524.00
30.7	Door Tee: 75 mm dia.	2	Each	101.00	202.00
30.8	Door Tee: 110 mm dia.	2	Each	195.00	390.00
30.9	Door Tee: 160 mm dia.	2	Each	514.00	1028.00
30.10	Plain Y: 75 mm dia.	1	Each	102.00	102.00

30.11	Plain Y: 110 mm dia.	1	Each	206.00	206.00
30.12	Plain Y: 160 mm dia.	1	Each	583.00	583.00
30.13	Bend 87.5 degree: 75 mm dia.	5	Each	61.00	305.00
30.14	Bend 87.5 degree: 110 mm dia.	5	Each	120.00	600.00
30.15	Bend 87.5 degree: 160 mm dia.	5	Each	338.00	1690.00
30.16	Door Bend 87.5 degree: 75 mm dia.	5	Each	83.00	415.00
30.17	Door Bend 87.5 degree: 110 mm dia.	5	Each	147.00	735.00
30.18	Door Bend 87.5 degree: 160 mm dia.	5	Each	369.00	1845.00
30.19	Plain Floor Trap with Top tile & Strainer 75 mm	5	Each	144.00	720.00
30.20	Pipe Clip: 75mm dia	15	Each	16.00	240.00
30.21	Pipe Clip: 110mm dia	15	Each	21.00	315.00
30.22	Pipe Clip: 160mm dia	15	Each	43.00	645.00
31.0	Supplying, fitting & fixing UPVC pipes A- Type and fittings conforming to IS:13592-1992 with all necessary clamps nails, including making holes in walls, floor etc. cutting trenches in any soil through masonry concrete structures etc if necessary and mending good damages including joining with jointing materials (Spun Yarn, Valamoid/Bitumen/M-Seal etc) complete.				
31.1	UPVC Pipes:110 mm. Dia.	25	Meter	251.00	6275.00
31.2	UPVC Pipes:160 mm. Dia.	15	Meter	485.00	7275.00
	UPVC Fittings:				
31.3	Plain Tee:110 mm Dia.	5	Nos	172.00	860.00
31.4	Plain Tee:160 mm Dia.	3	Nos	507.00	1521.00
31.5	Bend 87.5 degree:110 mm Dia.	10	Nos	140.00	1400.00
31.6	Bend 87.5 degree:160 mm Dia.	5	Nos	346.00	1730.00
31.7	Shoe:110 mm Dia.	5	Nos	111.00	555.00
31.8	Shoe:160 mm Dia.	5	Nos	305.00	1525.00
32.0	Supplying, fitting and fixing PVC pipes of approved make of Schedule 80 (medium duty) conforming to ASTM D - 1785 and threaded to match with GI Pipes as per IS : 1239 (Part - I). with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, long screw, reducing socket, reducing tee, short piece etc. fitted with holder bats clamps, including cutting pipes, making threads, fitting, fixing etc. complete in all respect including cost of all necessary fittings as required, jointing materials and two coats of painting with approved paint in any position above ground. (Payment will be made on the centre line measurements of total pipe line including all specials. No separate payment will be made for accessories, specials. Payment for painting will be made separately). For Exposed work				
32.1	25 mm dia	15	Meter	177.00	2655.00
32.2	32 mm dia	15	Meter	236.00	3540.00
32.3	40 mm dia	45	Meter	292.00	13140.00
32.4	50 mm dia	15	Meter	384.00	5760.00
33.0	Supplying, fitting and fixing PVC pipes for underground work of approved make of Schedule 80 (medium duty) conforming to ASTM D - 1785 and threaded to match with GI Pipes as per IS : 1239 (Part - I). with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, long screw, reducing socket, reducing tee, short piece etc. fitted including cost of all materials, jointing materials, cutting pipes, making threads, cutting trenches upto 1.5 meter below surface in all sorts of soil and refilling the same as directed complete in all respect. (Payment will be made on the centre line measurement of the total pipe line including all specials No separate payment will be made for accessories, specials.)				
33.1	25 mm dia	5	Meter	191.00	955.00
33.2	32 mm dia	5	Meter	250.00	1250.00
33.3	40 mm dia	5	Meter	311.00	1555.00
33.4	50 mm dia	5	Meter	403.00	2015.00
34.0	Chromium plated Bib Cock with wall flange (Equivalent to Code No. 5047 & Model - Florentine of Jaquar or similar brand).	4	Each	861.00	3444.00
35.0	Rendering the surface of walls and ceiling with white cement based wall putty of approved make and brand (1.5mm thick) and prepare the surface even and smooth all complete.	100	Sqm.	110.00	11000.00
36.0	Applying Interior grade Acrylic Primer of approved quality and brand on plastered or concrete surface in old or new work to receive Distemper/ Acrylic emulsion paint including scraping and preparing the surface thoroughly, complete as per manufacturer's specification and as per direction of the EIC at any floor. Water based interior grade Acrylic Primer One coat. Physical consumption of primer will be verified with the actual area of painted surface and penalty @Rs.130/lit will be imposed if any deviation is found with respect to the consumption of primer according to the manufacturer's specifications.	100	Sqm.	30.80	3080.00
37.0	Applying Acrylic Emulsion Paint of approved make and brand (Asian Paints Apcolite/ ICI Dulux Super Clean 3 in 1/ Berger Easy clean) on walls and ceiling including sand papering in intermediate coats including putty (to be done under specific instruction of Superintending Engineer) : Two or more coats with Luxury Quality Acrylic Emulsion Paint. (Rate is inclusive of applying additional coats wherever required to achieve even shade and colour.) Physical consumption of paint will be verified with the actual area of painted surface and penalty @Rs.440/lit will be imposed if any deviation is found with respect to the consumption of paint according to the manufacturer's specifications.	100	Sqm.	70.00	7000.00

38.0	Applying pre treatment coat of approved quality and brand (ICI Aquatech Exterior Pre Treatment Coat or equivalent) over the exterior surface of slope roof, parapet walls etc. after thorough cleaning & scraping of moss, blisters etc. by means of scraper, wire brush & water jet all complete as per manufacturer's specification and direction of the EIC. <i>(Payment against this item will be made only when this has been done on the specific direction of the Engineer-in-charge)</i>	1200	Sqm.	11.00	13200.00
39.0	Applying Exterior grade Acrylic primer of approved quality and brand (ICI Dulux Weathershield Alkalibloc or equivalent) on plastered or concrete surface old or new surface to receive decorative textured (matt finish) or smooth finish acrylic exterior emulsion paint including scraping and preparing the surface thoroughly, complete as per manufacturer's specification and as per direction of the EIC at any floor. One Coat applied @ 0.9 ltr/ 10 sqm. (Make: ICI/ Asian Paints/ Berger/ Nerolac) Physical consumption of primer will be verified with the actual area of painted surface and penalty @Rs.220/lit will be imposed if any deviation is found with respect to the consumption of primer according to the manufacturer's specifications.	1200	Sqm.	31.40	37680.00
40.0	Protective and Decorative Acrylic exterior emulsion paint of approved quality and brand (ICI Dulux Weathershield Max, Apex ultima of Asian paint, Barger Weather coat long life Flexo or equivalent), as per manufacturer's specification and as per direction of Engineer-In-Charge to be applied over acrylic primer as required. The rate includes cost of material, labour, scaffolding and all incidental charges but excluding the cost of primer. Two or more coats applied @ 1.67 ltr/ 10 sqm with Super protective 100% Acrylic Emulsion paint. Rate is inclusive of applying additional coats wherever required to achieve even shade and colour. Physical consumption of paint will be verified with the actual area of painted surface and penalty @Rs.550/lit will be imposed if any deviation is found with respect to the consumption of paint according to the manufacturer's specifications.	1200	Sqm.	97.00	116400.00
41.0	Priming one coat on steel or other metal surface with synthetic oil bound primer of approved quality including smoothening surfaces by sand papering etc. (This item is applicable to new work or old work when the original surface has been exposed by removal of old paint)	250	Sqm.	29.00	7250.00
42.0	Priming one coat on timber or plastered surface with synthetic oil bound primer of approved quality including smoothening surfaces by sand papering etc. (This item is applicable to new work or old work when the original surface has been exposed by removal of old paint)	50	Sqm.	38.00	1900.00
43.0	Painting with best quality synthetic enamel paint of approved make and brand (ICI Dulux 5 in 1 or Equivalent) including smoothening surface by sand papering etc. including using of approved putty etc. on the surface, if necessary.				
43.1	Two or more coats (with any shade except white) with super gloss (hi-gloss) of approved quality on timber or plastered surface.	50	Sqm.	81.00	4050.00
43.2	Two or more coats (with any shade except white) with super gloss (hi-gloss) of approved quality on steel or other metal surface.	250	Sqm.	79.00	19750.00
44.0	Supplying, fitting & fixing heavy duty parallel arm hydraulic door closer of approved make as per I.S.I. standard fitted and fixed all complete. Make: Godrej/ Dorma/ Ozone	2	Each	2,064.00	4128.00
45.0	Supplying, fitting and fixing 'Godrej' Cylindrical Stainless Steel lock and keys.	2	Each	950.00	1900.00
46.0	Hire and labour charges for high scaffolding (Upto 8.5 metre height) for replacing glass panels, painting, uprooting of plant and any other repairing works of building and Sanitary & Plumbing works for external works with 10 cm. dia bamboo as main posts at the rate of 1 metre centre to centre and 7.5 cm. dia bamboo ties @ 0.75 metre apart fitting and fixing with necessary coir, nails etc. This item is to be operated as per specific instruction of the Engineer-in-charge.	1	L.S	15,000.00	15000.00
47.0	Supplying, fitting and fixing Aluminium Window heavy type Lever Handle or C type handle of approved quality and colour .	300	Each	60.00	18000.00
48.0	Constructing Inspection pit of inside measurement 600mm X 600mm X upto 600mm (depth) with 250 mm thick 1st. class brick work in cement mortar (1:4) on all sides, bottom of the pit consisting of 100 mm thick cement concrete (1:3:6) with stone chips over a layer of jhama brick flat soling, 15 mm thick (1:4) cement plaster to inside walls and out-side walls upto G.L. and 20 mm.thick (1:4) plaster to bottom of the pit, providing necessary invert with cement concrete (1:3:6) with stone chips as per direction, neat cement finishing to entire internal surfaces, top of the pit covered with 100 mm thick R.C.C. slab (1:1.5:3) with stone chips and necessary reinforcements upto 1% and shuttering including 6 mm thick cement plaster (1:4) in all external surfaces of the slab and one 560 mm dia. R.C.C. manhole cover of approved make supplied, fitted and fixed in the slab with necessary fittings, necessary earthwork in excavation in all sorts of soil, filling sides of the pit with earth and removing spoils after work complete in all respect with all costs of labour and materials. With Pakur variety (Other than SAIL/TATA/RINL).	2	Each	7,149.00	14298.00
49.0	Removing old paint from blistered painted surface of steel or other metal by chipping including scraping and cleaning and exposing the original surface.	250	Sqm.	47.00	11750.00
50.0	Removal of rubbish, earth, scrap material etc. from the working site and disposal of the same beyond the compound in truck loads in conformity with Municipal/ Corporation rules and as per instruction of Engineer – in – Charge.	4	Trip	1,500.00	6000.00

Cost of Civil works :::	19,82,752.34
GST, as applicable over cost of Civil work @ 18% :::	3,56,895.42
Cost of Civil works excluding labour welfare cess :::	23,39,647.76
Labour welfare cess @ 1% :::	23,396.48
Total amount of Civil Work :::	23,63,044.24
Say Rs.	23,63,044.00