

Schedule of work for “Extension of Tribology Laboratory under XI-th Five Year Plan, at CMERI, Durgapur.”

Item No.	Description	Unit	Qty.	Rate	Amount
1.	Demolishing brickwork including stacking of serviceable material and disposal of unserviceable material within 50 metres lead in cement mortar.	Cum	1.0		
2.	Demolishing R.C.C. work including stacking of steel bars and disposal of unserviceable material within 50 meters lead.	Cum	1.0		
3.	Taking out doors, windows and clerestory windows (steel or wood) including stacking within 50 metres lead of area 3 sq. meters and below.	Each	2.0		
4.	Earth work in excavation in foundation trenches including dressing of sides & removing of bottoms including getting out the excavated soil & disposal of surplus excavated soil as directed, within a lead of 50m.	Cum	90.0		
5.	Supplying & filling in plinth with sand under floors, including, watering, ramming consolidating and dressing complete.	Cum	23.0		
6.	Filling available excavated earth (excluding rock) in trenches, sides of foundation etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming & watering lead upto 50m & lift upto 1,5m.	cum	50.0		
7.	Providing and laying specified grade of reinforced cement concrete work excluding the cost of centering, shuttering, finishing & reinforcement all work upto plinth level with 1:1.5:3 (1cement: 1.5coarse sand: 3graded aggregate 20mm nominal size)	Cum	8.0		
8.	Reinforced cement concrete work in walls (any thickness) including attached pilasters, buttresses, plinth and string courses, columns, pillars, piers, abutments, posts and struts etc upto floor V level excluding cost of centering, shuttering, finishing and reinforcement in 1 : 1.5 : 3 (1cement: 1.5coarse sand: 3graded: aggregate 20mm nominal size).	Cum	63.0		
9.	Centering & shuttering including strutting, propping etc removal of form for foundation, footing, bases of columns etc. for mass concrete.	Sqm	40.0		

Item No.	Description	Unit	Qty.	Rate	Amount
10	Centering & shuttering including strutting, propping etc & removal of form for columns, pillars.	Sqm	150.0		
11.	Centering & shuttering including strutting, propping etc & removal of form for lintels, beams, cantilevers etc.	Sqm	310.0		
12.	Reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete. Mild steel and medium tensile steel bars.	Kg	8000.0		
13.	Providing and laying damp proof course 40 mm. thick with cement concrete 1:2:4 (1 cement:2 coarse sand:4 graded stone) aggregate 12.5 mm. nominal size	Sqm	13.0		
14	Brick work with FPS bricks of class designation 75 in foundation & plinth in 1:6 cement mortar (1 cement : 6 coarse sand)	Cum	20.0		
15.	Brick work with FPS bricks of class designation 75 in Super Structure above plinth level in 1:6 grade (1 cement: 6 coarse sand).	Cum	50.0		
16.	Providing & laying in position cement concrete of specified grade excluding the cost of centering & shuttering, upto plinth level in 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm. nominal size).	Cum	40.0		
17.	6mm cement plaster to ceiling of mix 1:3 (1cement : 3 fine sand)	Sqm	220.0		
18.	12mm cement plaster of mix 1:4 (1cement: 4coarse sand)	Sqm	200.0		
19.	15mm cement plaster on rough side of mix 1:4 (1cement: 4coarse sand)	Sqm	300.0		
20.	12 mm. cement plaster finished with a floating coat of neat cement of mix 1:4 (1 cement : 4 fine sand)	Sqm	80.0		

Item No.	Description	Unit	Qty.	Rate	Amount
21.	Providing woodwork in frames of doors and other frames and fixed in position with sal wood.	Cum.	0.07		
22.	Providing & mixing ISI marked flush door shutters non-decorative type, core of block board construction with frame of first class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters 35 mm th. Including ISI marked stainless steel butt hinges with necessary screw.	Sqm	3.2		
23.	Steel work welded in built up section/ framed work including cutting hoisting fixing in position and applying one coat of primer of approved brand as required guard bar in frames, guard bar , ladder, railing , and similar works.	Kg	1200.0		
24	Providing & fixing glazing clear/tinted in aluminum door, window, ventilator shutters, and partition etc with PVC / neoprene gasket etc. Complete as per the direction of Engineer-in-Charge with glass panes of 5.5 mm. thickness weight not less than 13.75kg/sqm	Sqm	110.0		
25.	Providing & fixing anodized aluminium work for doors, windows with extruded build up standard tabular and other sections of approved make conforming to IS:733 & IS:1285. Aluminium sections shall be smooth, rust free, straight mitred and jointed mechanically wherever required including cleat angle, aluminum snap beading for glazing all complete as per the directions of Engineer-in-Charge. For shutters of doors including providing & fixing hinges and making provision for fixing of fittings including the cost of PVC/gasket required	Kg	500.0		
26.	Providing & fixing anodized aluminium work for partition with extruded build up standard tabular and other sections of approved make conforming to IS: 733 & IS: 1285. Aluminium sections shall be smooth, rust free, straight mitred and jointed mechanically wherever required including cleat angle, aluminum snap beading for glazing all complete as per the directions of Engineer-in-Charge. For fixed partition	Kg	450.0		
27.	Providing and applying plaster of paris putty of 2mm thickness over plastered surface to prepare the surface even and smooth complete.	Sqm	220.0		

Item No.	Description	Unit	Qty.	Rate	Amount
28.	Applying one coat of cement primer of approved brand and manufacture ICI, Berger, Asian Paints on wall surface	Sqm	660.0		
29.	Wall painting with plastic emulsion paint of approved brand and manufacture, such ICI, Berger, Asian Paints to give an even shade, two or more coats on new work.	Sqm	450.0		
30.	Finishing wall with Premium Acrylic Smooth exterior paint with silicon additives "Snowcryl – XT" of M/s Snowcem India Ltd., ICI, Berger, Asian Paints of required shade in new work (two or more coats applied over and including base coat of water proofing cement paint Snowcem Plus or equivalent.	Sqm	600.0		
31.	Painting with Synthetic enamel paint of approved brand and manufacture ICI, Berger, Asian Paints to give an even shade with two or more coats.	Sqm	70.0		
32.	Providing & fixing double action hydraulic floor spring of approved brand and manufactured IS:6315 marked for doors including cost of cutting floors as required, embedding in floors and cover plates with brass pivot and single piece MS sheet outer box with slide plate etc. complete as per the direction with stainless steel cover plate	Each	5.0		
33.	Providing and fixing flat pressed 3 layer medium density particle board or graded particle board 12mm thick (grade I) IS: 3087 marked (Novapan, Ecoboard, Bhutan Board) in ceiling with necessary nails, cutting for light fittings, A.C Outlet, Fan etc complete.	Sqm	220.0		
34.	Providing & fixing level adjusting hangers of 6 mm dia M.S. rods (upto 1200mm length) fixed to roof slabs by means of M.S. angle ceiling cleats 40x40x5mm size 40mm long and expansion hold fasteners 12.5mm dia 40mm long including applying priming coat of zinc chromate yellow primer for steel members complete.	Each	330.0		

Item No.	Description	Unit	Qty.	Rate	Amount
35.	Providing and fixing anodized aluminium work (with min. 15 micron uniform anodic coating) consisting of tee/angle sections, of approved make confirming to IS: 733 in frames of false ceiling inclu. aluminium angle cleats with necessary C.P. brass/stainless steel sunk screws, aluminium perimeter angle fixed to wall with rawl plugs @450mm center to center and fixing the frame work to level adjusting hangers (6mm dia M.S. rods) all complete as per the direction of Engineer-in-Charge. (Level adjusting hangers, ceiling cleats and expansion hold fasteners to be paid separately)	Kg	220.0		
36.	Providing and fixing 12mm thick prelaminated 3 layer medium density (exterior grade) particle board Grade I, Type II confirming to IS:12823 bonded with phenol formaldehyde synthetic resin, of approved brand and manufacture in panelling fixed in aluminium doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawing and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on both sides.	Sqm	30.0		
37.	Providing & fixing on wall face unplasticised rigid PVC rain water pipe conforming to IS:13592 including jointing with seal ring conforming to IS:5382 leaving 10 mm. gap for thermal expansion. 110 mm dia.	Meter	25.0		
38.	Providing & fixing on wall face unplasticised PVC moulded fittings / accessories for unplasticised rigid PVC rain water pipes conforming to IS:13592 including jointing with seal ring conforming to IS:5382. 110mm bend/shoe.	Each	12.0		
39	Felling trees of the girth (measured at a height of 1m above ground level) including cutting of trunks and branches removing the roots and stacking of serviceable material and disposal of unserviceable material. Beyond 60 cm girth upto and including 120 cm girth.	Each	3.0		
40	Kota stone slab flooring over 20mm thick. Base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with base of 1:4 (1 cement ; 4coarse sand) 25 mm thick	Sqm	25.0		

Item No.	Description	Unit	Qty.	Rate	Amount
41	Extra for kota stone flooring in treads of steps, not exceeding 30 cm in width.	sqm	25.0		
42	Extra for nosing in Kota stone for treads.	meter	40.0		
43	Removing white wash by scraping and sand papering for preparing the surface smooth including necessary repair etc. complete.	Sqm	60.0		
44	Grading roof for water proofing treatment with 1:2:4 (1cement: 2coarse sand: 4graded stone aggregate 20mm nominal size) mixed with water proofing compound "Impermo" of Snowcem or equivalent conforming to IS:2645 in recommended proportion.	Cum.	10.0		
45.	Providing and fixing ISI marked oxidized MS tower bolt black finish (barrel type) with necessary screws etc complete of size 150x10mm	each	10.0		
46.	Providing and fixing ISI marked oxidized MS handles conforming to IS4992 with necessary screw etc complete of size 100mm	each	10.0		
47	Providing and fixing bright finished brass 100mm mortice latch and lock ISI marked with six levers and a pair of anodized aluminium lever handles with necessary screw etc complete.	each	6.0		
48	White washing with lime to give an even shade in new work (three or more coat).	Sqm	150.0		
49	Providing & fixing 1mm th. M.S. sheet door with frame of 40x40x6mm angle iron and 3mm M.S. gusset plate at the junction and corners, all necessary fittings complete, including applying a priming coats of approved steel primer using M.S. angle 40x40x6mm for diagonal braces.	Sqm	4.20		

Item No.	Description	Unit	Qty	Rate	Amount
50	Providing and fixing homogeneous Polyvinyl Chloride (MF) super roll sheet of 2 mm thickness in flooring & skirting in approved pattern on a smooth base using rubber based adhesive of approved quality including rolling with light wooden roller weight about 5 Kg all complete as directed by Engineer In charge in approved color and shade.	Sqm.	55.0		
51	Providing and laying cement concrete of specified grade excluding the cost of centering & shuttering all work upto plinth level in 1:2:4 (1cement : 2coarse sand : 4graded stone aggregate 20mm nominal size)	Cum	13.0		
52	Chequerred pre cast cement concrete tiles 22mm thick in footpath & courtyard jointed with neat cement slurry mixed with pigment to match the shade of tiles including rubbing and cleaning etc complete on 20mm thick bed of cement mortar 1:4 (1cement :4coarse sand) with dark shade using ordinary cement.	sqm	70.0		
53.	Providing and laying ceramic glazed vitrified floor tiles 600x600 mm. (thickness to be specified by the manufacturer) of 1 st quality of NITCO, ORIENT, SOMANY KAJARIA or Eqv. Make as per approved colors, laid on 20 mm. thick cement mortar 1:4 (1 cement : 4 coarse sand) including pointing the joints with white cement & matching pigments etc. complete.	Sqm.	190.0		
54.	Providing and fixing 100mm wide Vista (levelor) or equivalent vertical blinds (dust gurd) of approved colour pattern & design.	Sqm	75.0		
55	Providing and laying Terracota roof tiles of size 150 x 100 mm of 1 st quality as per the approved pattern, design and make, laid on 15 mm. thick cement mortar 1:4 (1 cement : 4 coarse sand) including filling the joints with cement mixed with matching pigments etc. complete.	Sqm	20.0		
56	Providing and applying thick film specially formulated self leveling flooring, high glossy, abrasion resistant, high wear index, smooth and dense colour of desired shade of CICO make " EPU Floor-SL " or its equivalent after cleaning of concrete floor surface from dust, oil or grease etc, including labour and material all complete.	Sqm	60.0		