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B	BOQ for addition, alteration & renovation of <u>F-Type Quarter</u> for National Institute of Technology- Rourkela.								
Sl. No.	Item Description	Qty	Unit	Rate in figures	Rate in words	Amoun			
				mingures	in words				
1	Taking out doors, windows and clerestory windows shutter including chowkhats, architrave, holdfasts, making good the damages etc. complete and stacking within 50m lead of area 3 sqm and below.								
		4	No						
2	Dismentling Brick work at all heights including stacking of serviciable material and disposal of unserviceable material with in 50 mtre lead.		Cum						
3	Dismentling RCC work in any proporation at all heights including stacking of serviciable material and disposal of unserviceable material with in 50 mtre lead.	0.5	Cum						
4	Dismentling cement plaster/ skirting (all depths/ all prpoporation) at all heights including removal of debris within 50mtr lead.								
		40	Sqmt						

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
5	Earth work in excavation in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) in all kinds of soil including dressing of sides and ramming of bottoms, lift upto 1.5m, including getting out the excavated soil and disposal of surplus excavated soil					
		38	Cum			
6	Providing and laying in position cement concrete of 1:4:8 (1 cement : 4 coarse sand :8 graded stone aggregate 40mm nominal size) grade including the cost of curing ,centring and shuttering.		Cum			
7	Filling under foundation, floor & plinth with good river sand, including ramming watering for compacting after laying sand not exceeding 25.5cms including lead, labour, T&P of all required materials to complete the work in all respect as per the direction of the Engineer-incharge.		Cum			
	per the direction of the Engineer-in-	30	Cum			

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
8	Back Filling with available excavated earth including ramming watering for compacting after laying sand not exceeding 20 cms including lead, labour, T&P of all required materials to complete the work in all respect as per the direction of the Engineer-in- charge.					
		25	Cum			
9	Brick work with locally available KB bricks strenght not less than 75 Kg/sqcm in cement mortar 1:6 (1 cement : 6 coarse sand) in all width.					
9.1	Foundation & plinth	24	Cum			
9.2	Superstructure	30	Cum			
10	Providing half brick masonry with locally available KB bricks strenght not less than 75Kg/sqcm in superstructure including providing & placing in position 2 Nos 6mm dia M.S. bars at every third course of half brick masonry (with FPS bricks) cement mortar 1:4 (1 cement : 4 coarse sand)					
	•	6	Sqmt			

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
11	Providing Reinforced cement concrete work in proporation 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size) etc. at any location excluding cost of centring, shuttering, finishing and reinforcement. Recron 3S Tringular polyster fibres cut lenfth- 12mm @ 0.25% wt of cement (125gm/50kg bag of cement)					
		8	Cum			
12	Providing & laying 40mm thick Damp Proof Course in cement concrete (1 cement : 2 coarse sand : 4 graded stone aggegate 12.5mm nominal size) with side shuttering, rougnening the top surface.					
		15	Sqmt			

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Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
13	Providing 40mm thick Artificial Stone Flooring as per proper level in cement concrete of proporation of (1cement:2 coarse sand :4 graded coarse aggregates of 12.5mm nominal size) with a floating coat of neat cement punning, fixing of glass strip in the joints of new & old flooring cost including making good the damages, materials, labour, tax, T&P, lead,curing complete as per the direction of Engineerin-charge. Recron 3S Tringular polyster fibres cut length -12mm @ 0.25% wt of cement (125gm/50kg bag of cement)					
		26	Sqmt			
14	Cement Plaster Skirting with C.M. 1:3 finished with a floating coat of neat cement including rounding of junctions & curing complete.					
		6	Sqmt			

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
15	15mm C.P. in single coat 1:6 (1 cement : 6 sand) and waterproofing admixure Conplast x 4211C (Fosroc) as per manfacture's specification & Recron 3S Tringular polyster fibres cut lenfth-6mm @ 0.25% wt of cement (125gm/50kg bag of cement) at any location including finishing even & smooth and curing etc. complete including reparing the cracks with Renderoc CF (Fosroc) if required.					
		186	Sqmt			
16	18mm C.P. in two coats underlayer 12mm C.P. 1:5 and top layer 6mm thick C.P. 1:6 and waterproofing admixure Conplast x 4211C (Fosroc) as per manfacture's specification & Recron 3S Tringular polyster fibres cut lenfth-6mm @ 0.25% wt of cement (125gm/50kg bag of cement) finished even and smooth at any location and curing etc. complete including reparing the cracks with Renderoc CF (Fosroc) if required.		Squit			
		112	Sqmt			

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
17	6mm C.P. 1:4 (1 cement : 4 fine sand) to ceiling, soffit of beam,chajja, fin etc. and waterproofing admixure Conplast x 4211C (Fosroc) as per manfacture's specification & Recron 3S Tringular polyster fibres cut lenfth- 6mm @ 0.25% wt of cement (125gm/50kg bag of cement) including finishing smooth & even and curing at any location etc. including reparing the cracks with Renderoc CF (Fosroc) if required.					
		38	Sqmt			
18	Providing & fixing in position 30 mm thick ISI marked factory made solid core block board flush door both side commercial confirming to IS:2202, PT-1 shutter of approved make & quality bounded with phenol formal dehyde synthetic resin, leaping (polished) around complete as specified with painting both sides with primer & enamel paint of approved shade both side cost includes aldrop, tower bolt, handle, hinges, stopper etc. (all of stainless steel) complete in all respect as per the direction of Engineer (Including cost of all Hardware fittings)					
		7	Sqmt			

No of corrections:-

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
19	Supplying & Fixing glazed window shutter 30mm thick made of locally available second class teak wood with 4mm thick float glass with all necessary hardwars such as stainless steel hinges,SS handles, tower bolt, wooden cleats etc. with painting wood primer & synthetic enamel paint (two & more coats) to get an even shade to complete the work in all respects.					
		4	Sqmt			

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Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
20	Supplying & Fixing door frame / chowkath of cross section (125mm x 65mm) well seasoned sal wood in existing opening including embedding chowkath in floors or walls cutting masonary for holdfasts, embedding hold fasts in cement concrete blocks with cement concrete 1:1.5:3 (1 cement: 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size), taking out existing chowkath if required, painting two coats of coal tar to sides of chowkath and making good the damages to walls and floors as required complete including disposal of rubbish to the dumping ground within 50 metres lead as per the direction of Engineer in charge.					
		0.5	Cum			
21	Supplying and Fixing M.S. grills of required pattern in frames of windows/ openings etc with M.S. flats /square or round bars etc. including fabrication charge all complete	65	Kg			

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
22	Providing, cutting, bending, placing and binding steel reinforcement as per IS: 1786 in all RCC works, providing spacer blocks in CM 1:2 including binding wires etc. complete as per drawings and specification. Cold Rolled twisted bar /HYSD/TMT of TATA/SAIL Steel. (Grade Fe 415/500)					
		5	Qntl			
23	Centring and shuttering (Ply wood/Steel) including strutting, propping etc. and removal of form for:					
23.1	Lintel, beam, chajja, fins etc.	18	Sqmt			
23.2	Slab	48	Sqmt			
24	Providing bearing plaster 20mm thick in cement mortar (1:3) with a floating coat of neat cement & bitumen painting at any location.	6	Sqmt			

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
25	Providing and applying Two coats of synthetic enamel paint of approved make and shade form ASIAN PAINTS -APCOLITE PREMIUM GLOSS ENAMEL / BERGER PAINTS - LUXOL HI GLOSS SYNTHETIC ENAMEL / SUPER PAINTS / ICI DULUX / NEROLAC PAINTS" over existing painted or new wooden/ steel surfaces minor repairs including sealing of cracks with suitable putty of approved brand, scaffolding, cleaning of dirt, removal of oil etc, preparation of surfaces wherever required including sand papering, cleaning etc. complete as directed by the Engineer. Item includes cost of all materials, transportation, labour, etc.					
25.1	Over New work (wooden/ steel surface)	34	Sqmt			
25.2	Over old work (wooden / steel surface)	116	Sqmt			
26	Removing white or colour wash/ distemper water proofing cement paint by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	679	Sqmt			

No of corrections:-

No of interpolations:-

No of overwrittings:-

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
27	Distempering with 1st quality acrylic washable distemper (ready mixed) of approved manufacture's and of required shade and colour as per manufacture's specification . Two or more coats on new work.	495	Sqmt			
27.1	Applying one coat of cement primer of approved brand & manufacture on wall surface, distemper primer	495	Sqmt			
28	Providing and applying two coats of external paint with Antifungal / Antialgal Acrylic Emulsion of Asian make ACE / Berger make Walmasta /Goodlas -Nerolac make Excel/ ICI Dulux make Super coat/ Nitco make outlook of approved shade over existing painted wall and other surfaces, making good the damaged and rough surface smooth, minor repairs, sealing of cracks with cement slurry and cleaning of doors, windows, ventilators, washing the surroundings after completion of work including cost of all materials, labours etc. complete as per specification and as directed by the Engineer.	184	Sqmt			

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Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
29	Providing & Making Plinth Protection all round the building with bricks of class designation 55 laid on edge in cement mortar 1:6 (1 cement : 6 coarse sand) with 12mm thick bed of cement mortar 1:6 (1 cement: 6 coarse sand) over 75mm thick bed of dry brick aggregates 40mm nominal size well rammed & consolidated & grouted with fine sand & the top of the bricks pointed with cement mortar 1:3 (1 cement : 3 fine sand) including cost of all materials, labour, lead, royality, tax, T&P , curing etc.complete in all respects as per direction of Engineer /. in charge.					
		30	Sqmt			
30	Anchoring with chemical grouting in RCC (FISCHER / HILTI) including drilling holes for (8mm dia)the anchoring & specified depth as per the manufacture's specifications cost includes all material, labour, tax, lead, T&P etc. complete ian all respects at any location.		No			

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
31	Making dowels in the exising brick masonary / stone masonary of minimum 250mm wide & 200mm depth, removal of plaster, cutting groves in the existing wall alternate course at any location, removal of debris within 50mtr lead.					
		26	Mtr			
32	Providing & Applying Nitobond ^(R) EP (a product of Fosroc Chemicals (India) Pvt. Ltd.)/ Epoxy bonding agent of Pidilite Industries Ltd. as jointing material as a bonding agent for jointing of new & old concrete of roof slab / concrete member as per manfacture's specification as construction joint cost includes all material,labour, T&P, Scafolding charges etc. complete					
33	Waterproofing to the roof slab with	1	Sqmt			
	Brushbond (Fosroc) two coats as per manfacture's specification & grading plaster with cement mortar (1:4) 12mm thick with waterproofing compound of Fosroc.	64	Sqmt			

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
34	Repairing the existing window / door shutter includes removal of shutter from the existing wood frame, necessary repairing to the shutter including change of wooden members (rails, styles,panels) required size to match the existing shutter, wooden cleats, hinges, fixing the shutter with wood frame as required, cost includes all material, labour, tax, lead, scafolding charge, T&P, making good the damages etc. complete in all respects as per the direction of Engineer-in -charge.					
		10	Sqmt			
35	Dismentling of existing AS flooring in all depths including removal of debris with in 50mtr lead & reparing the same with cement concrete (1 cement : 2 coarse sand : 4 stone aggregate 12.5mm nominal size) & neat cement punning					
		35	Sqmt			

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
36	Hacking the roof surface with wooden mallet, removal of weakened concrete & removing the debris including stacking in proper place as directed. Applying Rebaklens RR (Fosroc) / equivalent as rust remover by brush to the exposed rusted reinforcement of slab, leave it in contact with surface till the reddish colour of the corroded surface has changed to nearest original black. After 24hrs remove the freed loose rust particles by brush. After removal of loose rust any reddish rusted surface still left to be retraeted with Rebaklens RR (of Fosroc)/equivalent.					
	After the surface totally dries up (within around 48hrs) a preventive anticorrosive coating for steel (2 coats) Nitozinc primer / equivalent applied as per the manfacture's specification. Then plastering with cement mortar (1 cement : 3 coarse sand) 12mm-15mm thick applied including curing, scafolding charge, finishing , making good the damages caused. Only finished plaster area will be measured for payment.	20				

No of corrections:-No of interpolations:-

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
37	Supplying & fixing fully glazed fixed ventilator with 6mm thick glass as glazing & anodised alumunium section of size 50.8mm x 38.10mm x 2mm thk. of JINDAL/ INDAL section (anodised to 15 micron) as frame, both side alumunium clip to fix the glass. Providing neroprene /EDPM gaskets to fix the glass. Sealing the gaps in between alumunium frame & RCC with polysulphide sealant. Cost includes all material, labour, tax, lead, scafolding charge etc.					
		7	Sqmt			
38	Supplying & Fixing Water closet (Orissa Pan) 580 x440mm with low level flushing cistern (Parryware/ Hindware), 32mm flush PVC pipe & white colour including all necessary accessories,removing the existing Water closet with P/S trap if required , concreting, for fixing in position & making good the damages caused to floor & wall.		Squit			
		2	Set			

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
39	Removal of existing dado and flooring from toilet, if required & Supplying,Fixing Ceramic Glazed tile of (Somany /Kajaria /Johnson) approved size & 5mm thickness with tile adhesive (Bal Endura/ Dr Fixit Fevimate XL/TL / Nitotile) /with base course of cement mortar (1 cement : 4 coarse sand) 15mm thick complete with grouting the joints with waterproof joint filler.					
		60	Sqmt			
40	Supplying, fixing and laying anti- skid ceramic tiles in all floors at all heights of (300mm x 300mm) size of approved make to floor surface conforming to drawings and designs set in cement mortar of proportion 1:3 to proper line and plumb including cutting to required size and shape and fixing at corners splays and chambers etc. and the joints are to be properly finished with white cement with required pigment and curing complete with cost of all labour, materials, taxes, T&P, conveyance etc. as directed by the Engineer / Architect. (Floors of toilet)					
		20	Sqmt			

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
41	Providing and fixing/ Replacing of existing damaged UPVC Pipes (Schedule 80 of Oriplast/ Neelplast) complete with all G.I. Fitting such as elbow sockets, union, nipples etc. & removing old pipes with fittings as per the site condition if necessary, making good the damages caused, chasing the wall for concealing the pipe, threading, cutting, wastage, painting the concealed fittings with bitumastic paint and exposed fittings with anticorrosive paint & synthetic enamel paint complete.					
41.1	15mm dia	22	Meter			
41.2	20mm dia	25	Meter			
41.3	32mm dia	6	Meter			
41.4	40mm dia	R.O.	Meter			
41.5	50mm dia	R.O.	Meter			

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
42	Providing and fixing PVC SWR pipe , waste and vent pipes with fittings such as bends, junctions 90° and 'Y' (135°) off sets terminal guards, collars, cutting and making good the holes or chase in walls or floors and making, jointing the pipes with solvent , including dismentling and removing the existing pipe as required by the site condition, concreting all round the pipe the portion embeded under the soil, testing the pipes after installation complete (pipes and fittings shall be of Prince/Finolex / Supreme make).					
42.1	160mm dia	15	Meter			
42.2	110mm dia	10	Meter			
42.3	75mm dia	5	Meter			
43	Supplying and Fixing Kitchen platform with 18mm thick Cudpa stone slab over 15mm thick cement mortar (1 cement : 4 coarse sand), pointing the joints with white cement & matched pigment in (1:1) including removing the old cladding & base course complete in all respects.	5.5	Sqmt			

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
44	Supplying and Fixing Stainless steel sink of Salem stainless steel AISI 304 (18/8) kitchen sink (Nirali/ Parryware) as per IS:13983 with CI bracket and stainless steel plug 40mm including painting of fittings and bracket, drain pipe, cutting & making good the walls whereever required : Kitchen sink without drain board 610mm x 460mm bowl depth 178mm.					
		2	No			
45	Supplying & Fixing Wash basin of white colour of approved size with pillar cock (CP brass) -Jaquar continental series, waste pipe (PVC), CP waste coupling, all other neceessary accessories to complete the work as per the direction.					
46	Supplying & Fixing Bib cock of Jaquar continental series (Cat no- 037) CP brass including making good the damages including removing the existing fittings	2	No			
47	Supplying & Fixing Pillar cock of Jaquar continental series (Cat no- 017) CP brass including making good the damages including removing the existing fittings	2	No			

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
48	Supplying & Fixing long body Bib cock of Jaquar continental series (Cat no- 039) CP brass including making good the damages including removing the existing fittings					
		2	No			
49	Supplying & Fixing stop cock of Jaquar continental series (Cat no- 051/ 053/ 055/ 59) as required CP brass including making good the damages including removing the existing fittings	6	No			
50	Supplying & Fixing towel rail - 18" of Jaquar continental series (Cat no- 1111) CP brass including making good the damages including removing the existing fittings					
		2	No			
51	Supplying & Fixing towel ring of Jaquar continental series (Cat no- 1121) CP brass including making good the damages including removing the existing fittings	2	No			
52	Supplying & Fixing soap dish of approved make CP brass including making good the damages including removing the existing fittings	2	No			

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
53	Supplying & Fixing robe hook of Jaquar continental series (Cat no- 1191) CP brass including making good the damages including removing the existing fittings	2	No			
54	Supplying & Fixing Wall mixer of Jaquar continental series (Cat no- 219) CP brass including making good the damages including removing the existing fittings	2	No			
55	Supplying and Fixing cockroach trap of aproved make including making good the damaes	4	No			
56	Providing and fixing PVC nahani trap of self cleaning design with approximate 125 / 75 dia hinged grating including the cost of cutting and making good the walls and floors. 100mm inlet & 100mm oulet	4	No			
57	Providing and injecting Chemical emulsion chloropyriphos 20% E.C. for POST-CONSTRUCTIONAL anti- termite treatment and creating chemical barriers as per I.S. 6313 Part-C (of latest edition)	4	110			
57.1	along the exernal walls below concrete or masonary apron using chemical emulsion @ 2.25ltr / linear meter including drilling and plugging holes etc.	60	Meter			

No of corrections:-

Sl. No.	Item Description	Qty	Unit	Rate	Rate	Amount
				in figures	in words	
57.2	treatment of soil under existing floors using chemical emulsion @ 1ltr / hole, 300mm apart including drilling 12mm diameter holes and plugging with cement mortar 1:2 (1 cement : 2 coarse sand) to match the existing floor with chlorpyriphos /Lindane EC 20% with 1% concetration.					
		126	Sqmt			
57.3	treatment of existing masonry using chemical emulsion @ 1ltr / hole, 300mm apart including drilling holes at 45 deg and plugging with cement mortar 1:2 (1 cement : 2 coarse sand) to the full depth of the hole with chlorpyriphos /Lindane EC 20		Mtr			
	Total for two (2no) Quarter.			Rs		
	For 68 no quarter.	34	X	Rs		
		Эт	Α			
	In words:-					

