

Schedule of Quantity**Name of Work: Construction of Implement Shed for Farm Implement at ICAR-CRIJAF, Barrackpore**

SLNo	Description	Quantity	Unit	Rate	Amount	DSR No.
1	EARTH WORK					2
1.1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, for all lift, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.					2.8
1.1.1	All kinds of soil.	227	cum	260.30	59088.00	2.8.1
1.2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 and for all lif.	186	cum	196.00	36456.00	2.25
1.3	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	34	cum	2123.75	72208.00	2.27
2	CEMENT CONCRETE (CAST IN SITU)					4
2.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :					4.1
2.1.1	1:4:8 (1 Cement : 4 coarse sand (zone-III) derived from natural sources: 8 graded stone aggregate 40 mm nominal size derived from natural sources)	39	cum	6812.00	265668.00	4.1.8
2.2	Centering and shuttering including strutting, propping etc. and removal of form work for:					4.3
2.2.1	Foundations, footings, bases for columns	23	sqm	392.15	9019.00	4.3.1
2.3	Providing and laying damp-proof course 50 mm thick with cement concrete 1:2:4 (1 cement: 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources).	23	sqm	495.75	11402.00	4.11
2.4	Providing & applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7 kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	23	sqm	146.15	3361.00	4.13
2.5	Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources) over 75 mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	67	sqm	749.30	50203.00	4.17
3	REINFORCED CEMENT CONCRETE					5
3.1	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :					5.1
3.1.1	1:1.5:3(1 cement: 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	34	cum	9045.75	307556.00	5.1.2
3.2	Centering and shuttering including strutting, propping etc. and removal of form for					5.9
3.2.1	Foundations, footings, bases of columns, etc. for mass concrete	70	sqm	392.15	27451.00	5.9.1
3.2.2	Lintels, beams, plinth beams, girders, bressumers and cantilevers	128	sqm	736.40	94259.00	5.9.5
3.2.3	Columns, Pillars, Piers, Abutments, Posts and Struts	115	sqm	961.30	110550.00	5.9.6
3.3	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.					5.22
3.3.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	7710	kg	107.85	831524.00	5.22.6
3.4	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.					5.22A
3.4.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	2440	kg	107.85	263154.00	5.22A.6

SLNo	Description	Quantity	Unit	Rate	Amount	DSR No.
3.5	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge, for the following grades of concrete.: Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.					5.33
3.5.1	All works upto plinth level					5.33.1
3.5.1.1	Concrete of M25 grade with minimum cement content of 330 kg /cum	46	cum	9504.75	437219.00	5.33.1.1
3.5.2	All works above plinth level upto floor V level					5.33.2
3.5.2.1	Concrete of M25 grade with minimum cement content of 330 kg /cum	19	cum	9860.40	187348.00	5.33.2.1
4	MASONRY WORK					6
4.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:					6.1
4.1.1	Cement mortar 1:6(1 cement :6 coarse sand)	7	cum	7132.25	49926.00	6.1.2
4.2	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :					6.4
4.2.1	Cement mortar 1:6(1 cement : 6 coarse sand)	43	cum	9105.95	391556.00	6.4.2
5	WOOD AND P. V. C. WORK					9
5.1	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick.					9.7
5.1.1	Float glass panes					9.7.7
5.1.1.1	5.0 mm thick glass panes (weight not less than 12.50 kg/sqm).	21	sqm	2600.45	54609.00	9.7.7.2
5.2	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.					9.48
5.2.1	Fixed to openings /wooden frames with rawl plugs screws etc.	271	kg	238.35	64593.00	9.48.2
6	STEEL WORK					10
6.1	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5 mm size, with top and bottom rail of T-iron 40x40x6 mm, with 40 mm dia steel pulleys, complete with bolts, nuts, locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer.	33	sqm	11439.60	377507.00	10.3
6.2	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side /top /centre hung, with beading and all members such as F7D,F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, priming coat of approved steel primer, but excluding the cost of other fittings,glass panes complete all as per approved design, (sectional weight of only steel members shall be measured for payment).					10.11
6.2.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	376	kg	131.05	49275.00	10.11.1
6.3	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.					10.16
6.3.1	Hot finished welded type tubes	5341	kg	194.40	1038290.00	10.16.1

SLNo	Description	Quantity	Unit	Rate	Amount	DSR No.
7	FLOORING					11
7.1	62 mm thick cement concrete flooring with concrete hardener topping, under layer 50 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate, 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacture's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	340	sqm	1056.15	359091.00	11.5
8	ROOFING					12
8.1	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-Charge) of total coated thickness 0.50 mm (base metal of minimum 0.45 mm thickness with total coating thickness of 0.05mm) with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	400	sqm	738.65	295460.00	12.5
8.2	Providing and fixing precoated galvanised steel sheet roofing accessories of total coated thickness 0.50 mm (base metal of minimum 0.45 mm thickness with total coating thickness of 0.05 mm) with Zinc coating 120 gram per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete :					12.51
8.2.1	Ridges plain (500- 600mm)	29	metre	532.35	15438.00	12.51.1
9	FINISHING					13
9.1	12 mm cement plaster of mix:					13.4
9.1.1	1:6 (1 cement: 6 coarse sand)	263	sqm	343.65	90380.00	13.4.2
9.2	15 mm cement plaster on rough side of single or half brick wall of mix:					13.5
9.2.1	1:6(1 cement: 6 coarse sand)	219	sqm	395.35	86582.00	13.5.2
9.3	Finishing walls with ready mixed Premium acrylic emulsion paint (Company Depot Tinted) having VOC less than 50 gm/litre and UV resistance as per IS 15489:2004, Alkali & fungal resistance, dirt resistance exterior paint of required shade with silicon additives.					13.48A
9.3.1	New work (Two or more coats applied @ 1.43 litre/ 10 sqm over and including priming coat of exterior primer applied @ 0.90 litre/10 sqm.	263	sqm	181.25	47669.00	13.48A.1
9.4	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade:					13.62
9.4.1	Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture	178	sqm	226.25	40273.00	13.62.1
9.5	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.					13.83
9.5.1	Two coats	219	sqm	142.80	31273.00	13.83.2
9.6	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.					13.85
9.6.1	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	219	sqm	73.95	16195.00	13.85.3
	Total				5774583.00	"A"
	Modified Estimated Cost after using correction factor on DSR 2023 on account of GST @ 0.973 on "A"				5618669.00	"B"
	Add Cost Index @22% on "B"				1236107.00	
	Total				6854776.00	"C"

Executive Engineer
BCD-II, CPWD, Barasat