

**NATIONAL CENTRE FOR BIOLOGICAL SCIENCES  
TATA INSTITUTE OF FUNDAMENTAL RESEARCH**

**Name of work - Construction of Rain Water Harvesting Recharge pit in NCBS campus**

**Schedule of Quantities**

| Sl. No | Description   | Unit | Qty   | Rate                            | Amount |
|--------|---|------|-------|---------------------------------|--------|
|        |   |      |       | <b>(in Figures &amp; words)</b> |        |
| 1      | EARTHWORK   |      |       |                                 |        |
|        | NOTES FOR EARTHWORK ITEMS:  |      |       |                                 |        |
|        | No working space shall be considered beyond the width of the foundation concrete (mud-mat) shown in the drawings. The contractor shall consider working space if required while quoting the rate. The quoted rate shall include the quantity of earthwork to be done for working space if required and also for re-filling the foundation. For payment, the measurement shall be restricted only to the foundation width shown in the drawings. No extra shall be permitted and measured for payment on account of working space / battering / benching for excavation and refilling around foundation. |      |       |                                 |        |
| 1      | Earthwork in excavation by mechanical means (hydraulic excavator) / manual means ALL KINDS OF SOILS including dressing of sides, ramming of bottom, disposing the surplus excavated materials within a distance of 50m. complete as per specifications. (Disposed soil to be levelled by breaking clods if any and neatly dressed).   |      |       |                                 |        |
| 1.1    | Earthwork in excavation for OPEN WELLS for the first depth of 1.50m For the first depth of 1.5m. Up to 3.50m dia of excavation  | Cum  | 42.00 |                                 |        |
| 1.2    | Earthwork in excavation for OPEN WELLS for the second depth of 1.50 . Up to 3.50m dia of excavation   | cum  | 26.00 |                                 |        |
| 1.3    | Earthwork in excavation for OPEN WELLS for the third depth of 1.50 . Up to 2.5 dia of excavation  | cum  | 4.00  |                                 |        |
| 1.4    | Earthwork in excavation for OPEN WELLS for the fourth depth of 1.50 . Up to 2.5m dia of excavation  | cum  | 4.00  |                                 |        |

Signature of the Contractor

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|--------|---|------|-------|----------------------|--------|
|        |   |      |       | (in Figures & words) |        |
| 2      | Providing and laying cement concrete using 40mm nominal size graded hard granite stone aggregate obtained from approved quarry including compaction, finishing top surface to level, curing, cost of formwork, etc; complete as per specifications. Mix ratio specified is for cement : coarse river sand : graded stone aggregate.IN FOUNDATION AND PLINTH/SUB-BASE TO FLOORS.   |      |       |                      |        |
| 2.1    | PCC 1:4:8   | cum  | 1.00  |                      |        |
| 3      | Providing and constructing Solid Cement Concrete Block masonry in cement mortar 1:6 (cement : coarse river sand) using factory made, load bearing, approved quality cement concrete blocks of specified size, Grade C (4.0), as per IS 2185 (Part 1), density of blocks not less than 1800kg/cum, minimum average compressive strength of units is 4.0N/mm <sup>2</sup> and minimum strength of individual unit is 3.2N/mm <sup>2</sup> , setting in position, curing, raking out joints wherever required etc., complete all leads and all as per specifications and directions of engineer-in-charge in FOUNDATION AND PLINTH.  |      |       |                      |        |
| 3.1    | For 200mm thick walls using (400x200x200)mm size blocks   | Cum  | 13.00 |                      |        |
| 4      | Filling available excavated approved earth (excluding rock) in trenches, sides of foundations, plinth, etc; in layers not exceeding 15cm depth breaking clods, consolidating each deposited layer by ramming, watering and dressing, etc; complete for lead up to 50m and all lifts etc., complete as per specifications.   | cum  | 7.00  |                      |        |
| 5      | Providing and laying in position REINFORCED CEMENT CONCRETE using graded hard granite stone aggregate of 20mm nominal size obtained from approved quarry including mechanical mixing, vibrating, compaction, finishing, curing, etc; complete all as per specifications but excluding the cost of form works and steel reinforcement. (Rate to include labour for keeping embedment if any, wherever required while casting). Mix ratio is specified is for cement : coarse river sand : graded stone aggregate UPTO FLOOR FIVE LEVEL IN beams, suspended floors, roofs having slope up to 15 <sup>o</sup> , landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral staircases etc., with:using 1:1.5:3 | cum  | 4.00  |                      |        |

Signature of the Contractor

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|--------|--|------|-------|----------------------|--------|
|        |  |      |       | (in Figures & words) |        |
| 6      | Providing rigid and water tight CENTERING AND SHUTTERING using best quality of shuttering ply wood, steel centering sheets with steel props, acrotubes etc., including strutting, propping, bracing, staging, etc; complete for all RCC items fixed in position as required to obtain PLAIN EXPOSED FORM FINISH, including labour for careful removal of formwork etc; complete all as per specifications for all heights. In horizontal / vertical / slanting surfaces. |      |       |                      |        |
|        | Suspended floors, roofs, landings, shelves and their supports, balconies and chajjas   | sqm  | 26.00 |                      |        |
| 7      | Steel reinforcement for all RCC items including decoiling, cutting, hooking, bending, cranking, fabricating to required shape, placing in position and tying the system with soft drawn annealed GI binding wire of diameter not less than 1.00mm with 2 strands etc; complete all as per specifications at all heights (binding wire will not be measured for payment).   |      |       |                      |        |
|        | Thermo-Mechanically Treated (TMT) bars - Fe500   | Mt   | 0.48  |                      |        |
| 8      | Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge  | cum  | 9.00  |                      |        |
| 9      | Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.   | cum  | 4.5   |                      |        |
| 10     | Supplying, filling, spreading & leveling coarse sand of size range 1.5mm to 2 mm in recharge pit, in required thickness over gravel layer,for all leads & lifts, all complete as per direction of Engineer - incharge.   | cum  | 4.5   |                      |        |
| 11     | Supplying of CI Frames and Cover conforming to IS:1726 and bearing ISI mark of 600mmx600mm (75kg) as per specification and as directed by EIC.   | each | 4.00  |                      |        |

Signature of the Contractor

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|---|---|------|-------|----------------------|--------|
|   |   |      |       | (in Figures & words) |        |
| 12  | Carriage of material / earth by mechanical transport including loading, unloading and stacking the same as per the directions of E-In-C. (20% voids will be deducted from the measurements) lead upto 1km.  | cum  | 60.00 |                      |        |
| 13  | Providing and laying RCC Hume pipes collars conforming to IS 458 in recharge well carefully with 20mm space for each as directed by E-In-C etc., complete of size 1000mm dia.   | rm   | 30.00 |                      |        |
| 14  | Construction of silt collection chamber of size 600X600mm, 750mm deep comprising of 230mm thick brick walls using first class country brick walls in CM 1:5 over a bed of 150mm thick PCC 1:4:8 (using 40mm size metal) with 75mm projections all-round beyond the masonry faces, plastered with CM 1:3, mixed with waterproofing compound as per manufacturer's specifications 12mm thick on internal, external top surfaces and internal and top exposed surfaces finished smooth with a floating coat of neat cement, providing and fixing painted light duty double seal CI frame and cover of size 600X450mm weighing not less than 52kg conforming to IS 1726 with locking arrangement fixing the frame in RCC1:2:4 including cost of necessary steel reinforcement, fabricating, form work, curing, etc, complete all as specified and directed. NOTE: CC 1:2:4 in the above Item is by using 20mm graded granite aggregate obtained from approved quarry. | each | 2.00  |                      |        |
|   |   |      |       | <b>Total Rs.</b>     |        |
| <b>Note:</b> The Contractor shall quote his rates in this schedule of quantity. Submission of tender in any other format is liable for rejection. |   |      |       |                      |        |

**Total Amount in words:**

**Signature of the Contractor:**

**Date:**

**Address:**

Signature of the Contractor