

BACHELOR OF ARCHITECTURE (B.ARCH)

Term-End Examination

June, 2014

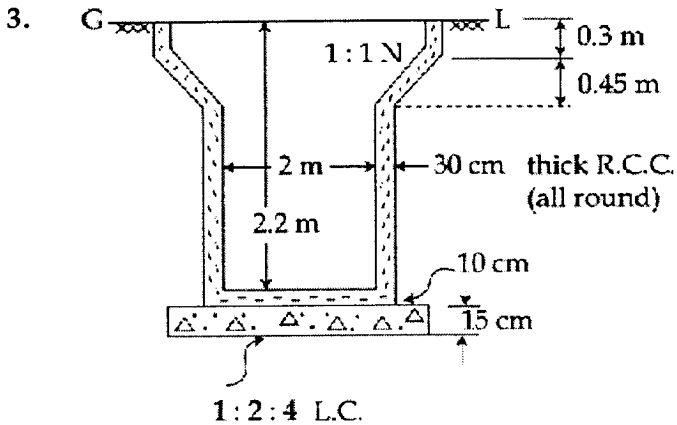
BAR-053 : ESTIMATING AND COSTING

Time : 3 hours

Maximum Marks : 70

Note : Solve any five questions, all questions carrying equal marks.

1. (a) Earthwork in excavation and filling is to be estimated on the basis of a plan and section of a small building of one room. Explain how you will figure out the estimate by centre line and long-short wall methods respectively. Give sketches. **11**
- (b) How do you estimate the earth work in excavation and filling in (a) above ? (Take your own assumptions of the room dimensions and the section of the foundation) **3**
2. Explain the term "estimation" and describe estimation in the context of the following :
 - (a) Plinth area rates of buildings for various classes. **3**
 - (b) Types of approximate estimates and the need of carrying approximate estimate. **4**
 - (c) How do you prepare a detailed estimate for R.C.C. work in roof slab. **7**



(Section of an R.C.C. Silo, circular in plan)

An underground silo (1 : 2 : 4 R.C.C.) is shown in section. Compute the following items of work :

- | | | |
|-----|---|---|
| (a) | Earthwork in excavation | 5 |
| (b) | 1 : 2 : 4 L.C. | 2 |
| (c) | 1 : 2 : 4 R.C.C involved. | 5 |
| (d) | Water-cement coat inside the silo. | 2 |
| | | |
| 4. | Workout the analysis of rates for the following items of work : | |
| (a) | Earthwork in filling in a road embankment | 5 |
| (b) | R.C.C. (1 : 2 : 4) in a slab | 4 |
| (c) | B.W. in super structure in C.M (1 : 4) | 5 |
| | | |
| 5. | (a) What do you understand by specifications ? Give detailed specifications for excavating the foundation trench of a building. | 5 |

- (b) Give the units of measurement for the following items : 9
- (i) Painting 3-coats on a wall and ceiling
 - (ii) Floor tiling
 - (iii) $\frac{1}{2}$ -brick thick partition wall
 - (iv) 2.5 cm thick 1 : 2 : 4 L.C. in flooring
 - (v) 40 mm thick pannelled doors
 - (vi) Door and window frames
 - (vii) Kota stone flooring in the front compound.
 - (viii) Door and window fixtures.
 - (ix) Glazing of doors and windows
6. Explain the following terms : 5
- (a) Tender notice 5
 - (b) Deposit work 3
 - (c) Earnest money 3
 - (d) Imprest 3
7. Why are the following procedures important in conducting a civil engineering work : 14
- (a) Administrative approval
 - (b) Payment on account
 - (c) Issuing indents of stores
 - (d) Maintaining a master roll
 - (e) Maintaining a measurement book
- Give examples :
8. Write short notes on any three of the following : 14
- (a) Types of flooring
 - (b) Item-rate tender
 - (c) Acquittance Roll
 - (d) Stock account