BAR-053

# BACHELOR OF ARCHITECTURE (B.Arch.)
## Term-End Examination
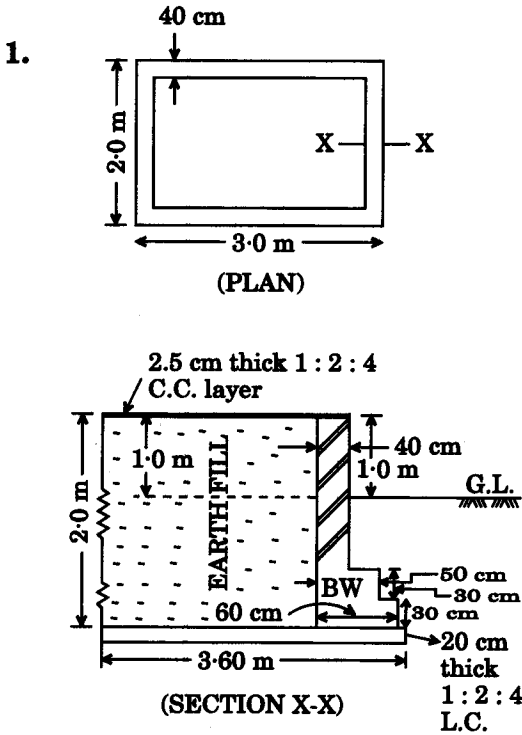## December, 2017

00302

## BAR-053 : ESTIMATING AND COSTING

*Time : 3 hours*                                    *Maximum Marks : 70*

**Note :** *Attempt any five questions. All questions carry equal marks.*

1.



*Figure 1*

Estimate the following items of work :

(a)   Earthwork in excavation                                    *2*

(b)   Earthwork in filling                                       *2*

(c)   1 : 2 : 4 L.C. in foundation                               *1*

(d)   2·5 cm thick 1 : 2 : 4 C.C. layer                          *1*

(e)   B.W. above G.L.                                            *2*

(f)   B.W. below G.L. (stepwise)                                 *6*

2.   Analyse the rates of the following items of work :

(a)   1 × 2 m wooden batten door with 4 piece
      chowkhat (frame)                                           *6*

(b)   1 : 2 : 4 L.C. layer on the roof slab (5 cm
      thick)                                                     *4*

(c)   Earthwork (complete) in filling                            *4*

3.   Give the units of measurement for the following
     items of work, considering the specification if
     given :

(a)   Sanitary fixtures                                          *1*

(b)   Painting for the given number of coatings to
      be done                                                    *2*

(c)   2·5 cm thick 1 : 2 : 4 L.C. on roof slab                   *2*

(d)   1 : 2 : 4 L.C. in foundation                               *1*

(e)   Formwork for R.C.C. beam (complete)                        *1*

(f)   Earthwork in cutting in hard soil                          *1*

(g)   R.C.C. work in a lintel                                    *1*

(h) R.C.C. work in a stair from ground floor to first floor (complete)  *1*

(i) 230 mm thick B.W. in ground floor  *1*

(j) 115 mm thick B.W. in second floor  *1*

(k) Formwork for an R.C.C. slab (give reasons)  *2*

4. Discuss the provision for administrative approval, technical sanction, and procedure for providing funds for any given work.  *14*

5. Draw and fill out (for the sake of illustration), the following :

(a) Indent of stores  *5*

(b) Muster roll  *5*

(c) Measurement book page  *4*

6. Discuss in detail the short-wall/long-wall, and centre line methods to estimate items of work in a building.  *14*

7. Give the general specifications for the following works :

(a) Laying of 1 : 2 : 4 L.C. in foundations  *4*

(b) Painting of woodwork that is already once painted a few years back  *6*

(c) Constructing ashlar stone masonry  *4*

8. Write short notes on any **four** of the following :  $4 \times 3\frac{1}{2} = 14$

   (a) Tender Notice

   (b) Item Rate Contract

   (c) Plinth Area Rates

   (d) Stock Account

   (e) Technical Report

   (f) Contingencies

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