

Code: CE7T3

**IV B.Tech - I Semester – Regular / Supplementary Examinations –  
November 2016**

**ESTIMATION AND COSTING  
(CIVIL ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

Answer any FIVE questions. All questions carry equal marks

1.

a) What is meant by estimate and explain briefly different methods of approximate estimate? 6 M

b) A person constructs a building of plinth area equal to 175 sq. m on a plot of land in a certain locality at a cost of Rs. 12,00,000. The height of building from ground level to top of roof is 3.5 m and a parapet wall of height equal to 75 cm is constructed on the terrace. Determine the cost of similar building of plinth area equal to 150 sq. m to be constructed in the same locality by plinth area rate and also by 'volume rate'. 8 M

2. Estimate the quantities of the building items of a hexagonal room from the given plan and section as shown in Figure – 1.

a) Earthwork excavation for foundation. 5 M

b) I-Class brick work for super structure. 4 M

c) Plastering in CM (1:5), 20 mm thick for inside walls. 5 M

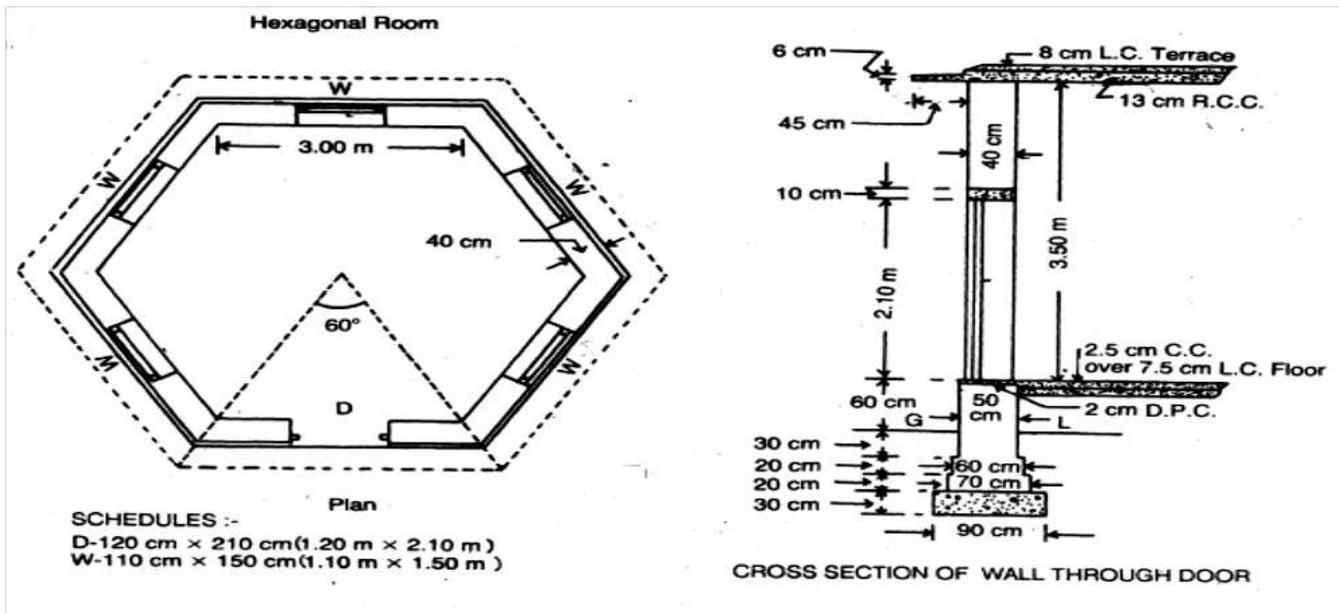


Figure – 1

3. Estimate the quantity and cost of earth work for a road between two stations A to B with the following data. Width of road is 10 m at formation surface and side slope 2:1. Rate of earth work in banking and cutting may be taken as Rs. 150.00 per cubic meter including lead up to 150 m with a condition that portion of earth work available from cutting is to be utilized for banking within the same lead of 150 m. The data on field for the portion of road are as follows; 14 M

Chainage (m)	0	1	2	3	4	5	6
Reduced Level (m)	123.50	124.9	125.0	122.8	121.40	121.1	120.70
Formation level (m)	123.10	123.3	123.7	123.7	123.10	122.9	122.80

4. Evaluate the cost of the following items of work.
- |  |     |
|--|-----|
| a) PCC for bed concrete with 1:4:8 proportion.               | 5 M |
| b) Brick masonry for super structure with cement mortar 1:8. | 5 M |
| c) Plastering in CM (1:4), 12 mm thickness.                  | 4 M |
5. Given a column and its footing shown in Figure - 2 work out the quantity of steel in footing and column only. 14 M

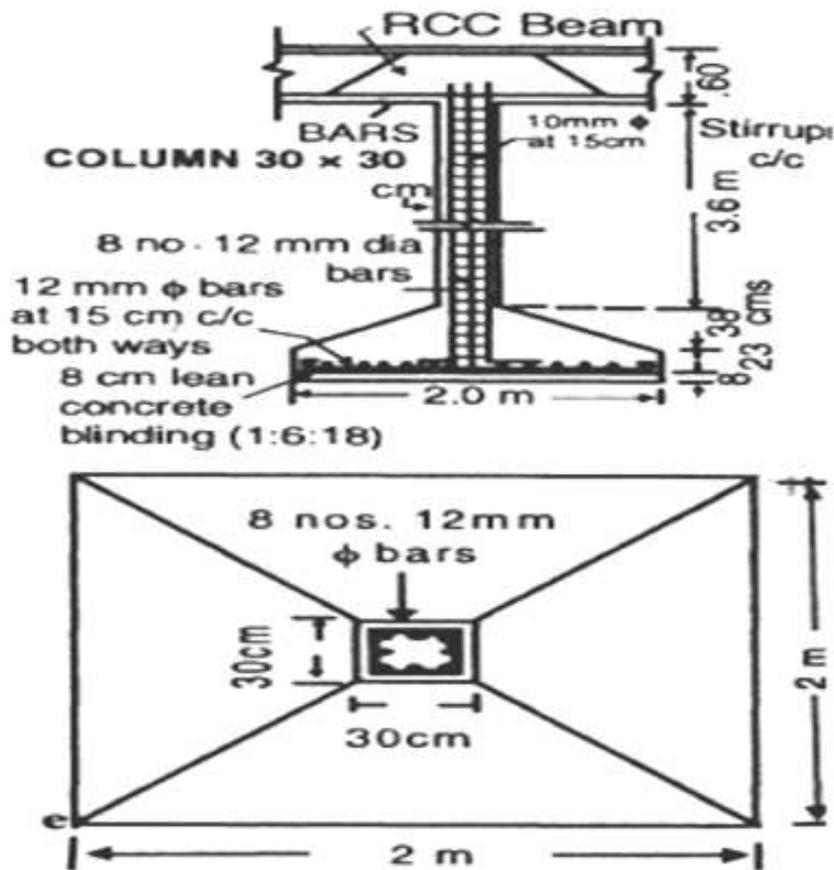


Figure - 2

6.

a) Define contract and explain briefly various types of contracts. 7 M

b) What is arbitration act? Explain advantages of setting the disputes by arbitration. 7 M

7.

a) Define valuation. Explain briefly the valuation methods. 5 M

b) An old building has been purchased by a person @ a cost of Rs. 6,00,000 excluding the cost of land. Calculate the amount of annual sinking fund @ 9% interest assuming the life of building as 30 years and the scrap value of the building as 10% of the purchase. 9 M

8. Write detailed specifications for the following items.

a) Earth work excavation for foundation. 5 M

b) I-Class Brick masonry for super structure. 5 M

c) Painting works. 4 M