Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 81040

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2016.

Seventh Semester

Civil Engineering

CE 6704 — ESTIMATION AND QUANTITY SURVEYING

(Regulations 2013)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the two main methods used to building estimate?

2. Define Carpet area and Circulation area.

3. What are the different methods to calculate quantity of earthwork for roads?

4. What are the main components of culvert?

5. Write down the duties of Quantity Surveyor?

6. What is meant by tender?

7. How market value is arrived for a property?

8. What is book value of the property?

9. Define Contract and Agreement.

10. What are the points need to be considered in report preparation?

PART B — (5 × 16 = 80 marks)

11. (a) Estimate in detail the quantities of the following items of work in a residential building shown in the accompanying Figure 1.

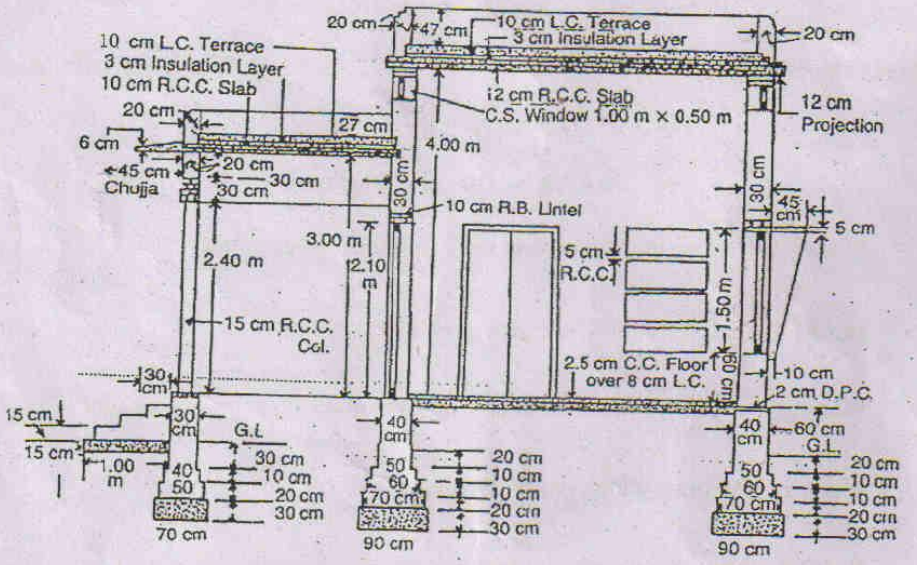
(i) Earthwork excavation in foundation (4)

(ii) Lime Concrete in foundation CM 1:6 (4)

(iii) Plastering CM 1:4 for all interior surfaces of walls 12 mm thick. (4)

(iv) Plastering of Ceiling and Flooring tiles. (4)

CROSS-SECTION OF TWO-ROOMED BUILDING



SECTIONAL ELEVATION ON CEFG

Fig. 1 Two Room Building

TWO-ROOM BUILDING WITH FRONT VERANDAH

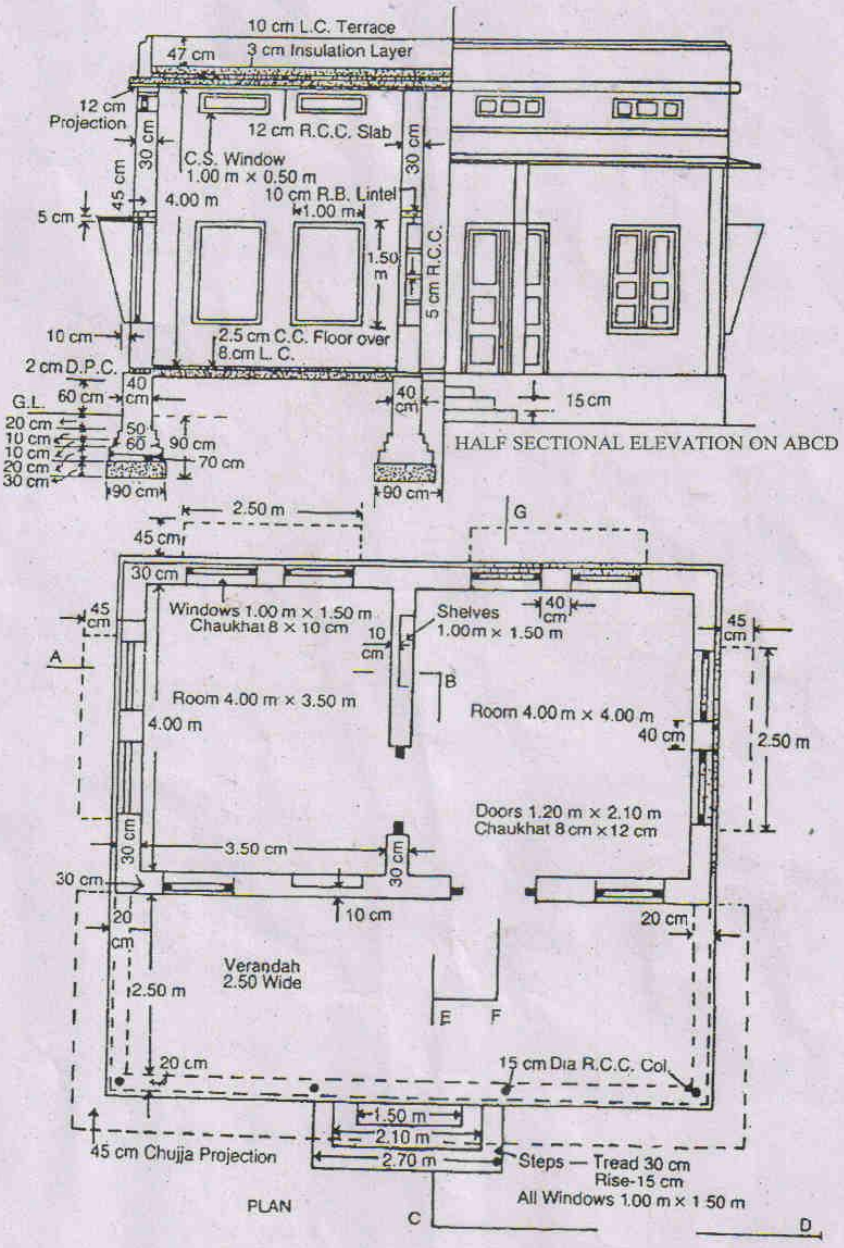


Figure 1

Or

(b) Explain in detail any four types of estimate. (16)

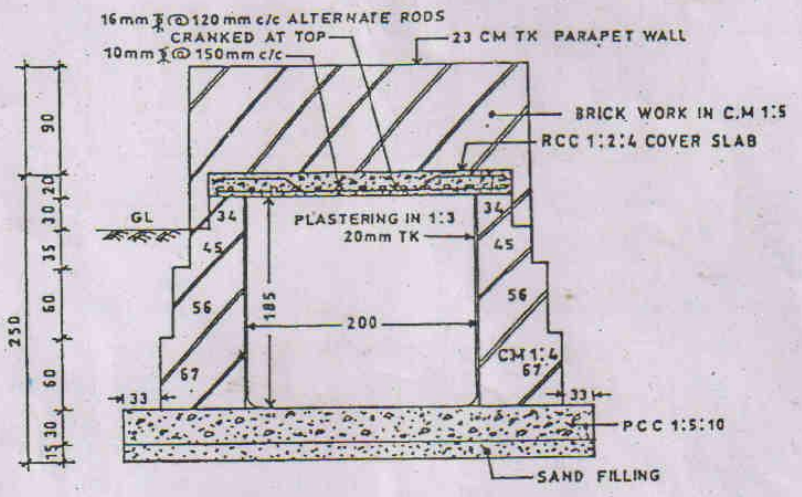
12. (a) Estimate in detail the quantities of the following items of work in a box culvert shown in figure. 2

(i) Earthwork in excavation and PCC for foundation (4)

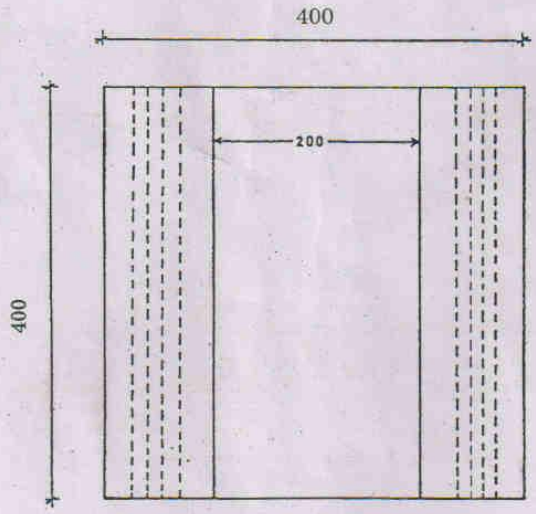
(ii) Plastering in inner walls of culvert with CM 1:4 (4)

(iii) Brickwork in foundation CM 1:4 (4)

(iv) RCC 1:2:4 — cover slab. (4)



Cross section of Box Culvert



Plan

All dimensions are in cms.

Box Culvert — Figure 2.

Or

(b) Estimate in detail the quantities of the following items of work for a retaining wall of length 30 metre shown in figure 3.

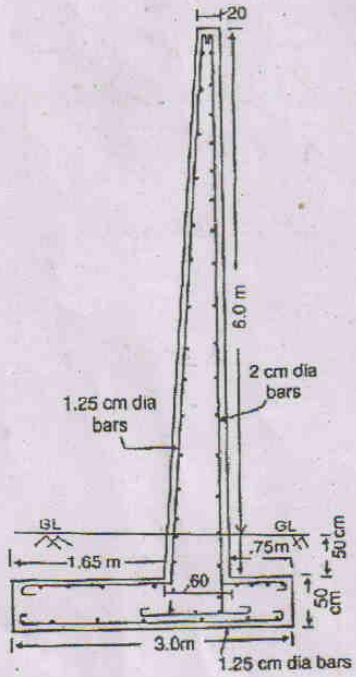
(i) Earthwork in excavation (3)

(ii) RCC 1:2:4 base (3)

(iii) RCC 1:2:4 Stem (3)

(iv) % of Steel Reinforcement and (3)

(v) Plastering above ground level. (4)



Retaining Wall — Figure 3

13. (a) Using the current schedule of rates for materials and labours prepare data for the following items of work :

(i) Plain Cement Concrete 1:5:10 for 1 m^3 (8)

(ii) Brickwork in foundation with 20 × 10 × 10 cm bricks with CM 1:6 for 10 m^3. (8)

Or

(b) Write down the general specification for a first class building. (16)

14. (a) Calculate the standard rent of a building with the following data Cost of land: Rs. 7,00,000, Cost of building: Rs. 16,00,000 Expected life of the building is 65 years. Returns expected 5% on land and 8% on building. Annual repair 1% on the cost of building. Sinking fund on 4% interest basis on 90% of the cost of building. Other outgoing 30% of the return from the building. (16)

Or

(b) Mention the various methods of valuation and explain. (16)

15. (a) Write report to accompany an estimate for a residential for a executive engineer. (16)

Or

(b) Prepare a report on estimate for construction of a road on national highway. (16)
