Question Paper Code : 21264

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2015.

Seventh Semester

Civil Engineering

CE 2402/CE 1401/CE 72/10111 CE 702 — ESTIMATION AND QUANTITY SURVEYING

(Regulations 2008/2010)

(Common to PTCE 2402/10111 CE 702 – Estimation and Quantity Surveying for B.E. (Part-Time) Fifth/Sixth Semester Civil Engineering – Regulations 2009/2010)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define center line method.

2. State plinth area rate.

3. Define mid-sectional area method.

4. What is lead and lift?

5. Write about analysis of rate.

6. Differentiate dismantling and demolition.

7. Write any two purposes of valuation.

8. What is market value?

9. Write about any two principles of report preparation.

10. Give a note about any two principles for the preparation of water supply scheme.

PART B — (5 × 16 = 80 marks)

11. (a) Prepare a detailed estimate of a shop building consisting of three shops with front verandah from the given drawing Fig. 11(a) for the following.

(i) Earthwork in excavation in foundation. (5)

(ii) 1st class brick – work in 1 : 6 cement mortar in foundation and plinth. (5)

(iii) 12 mm thick cement plastering 1 : 6 in walls. (3)

(iv) White washing 3 coats inside. (3)

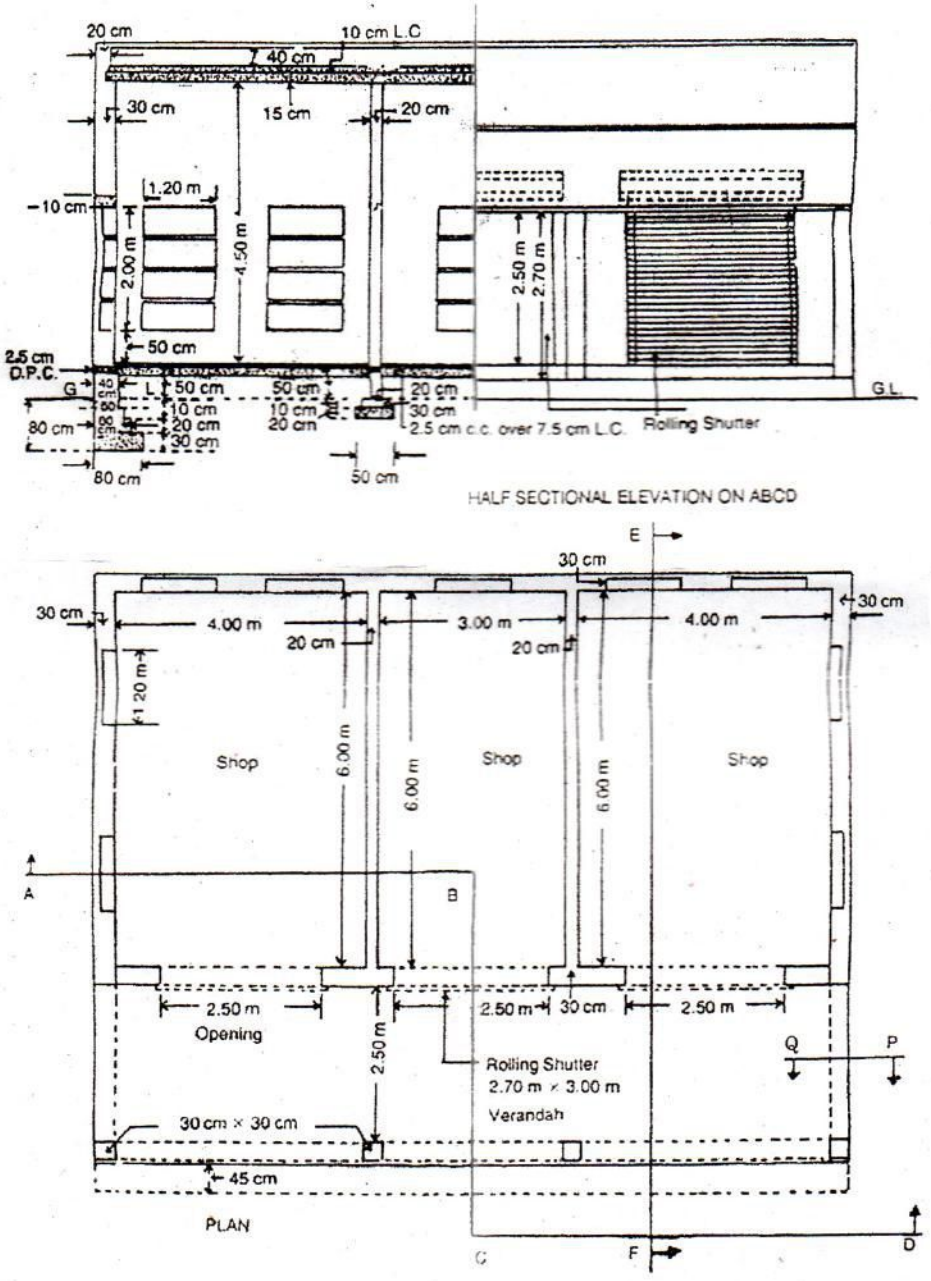

Fig. 11(a)

Or

(b) The plan and sectional elevation of a building are given in Fig. 11(b). Estimate the quantities of the following items of work of the building.

(i) Lime concrete in foundation. (4)

(ii) R.C.C. work in floor slabs, lintels, sunshades. (10)

(iii) Steel reinforcement bars in R.C.C at 1%. (2)

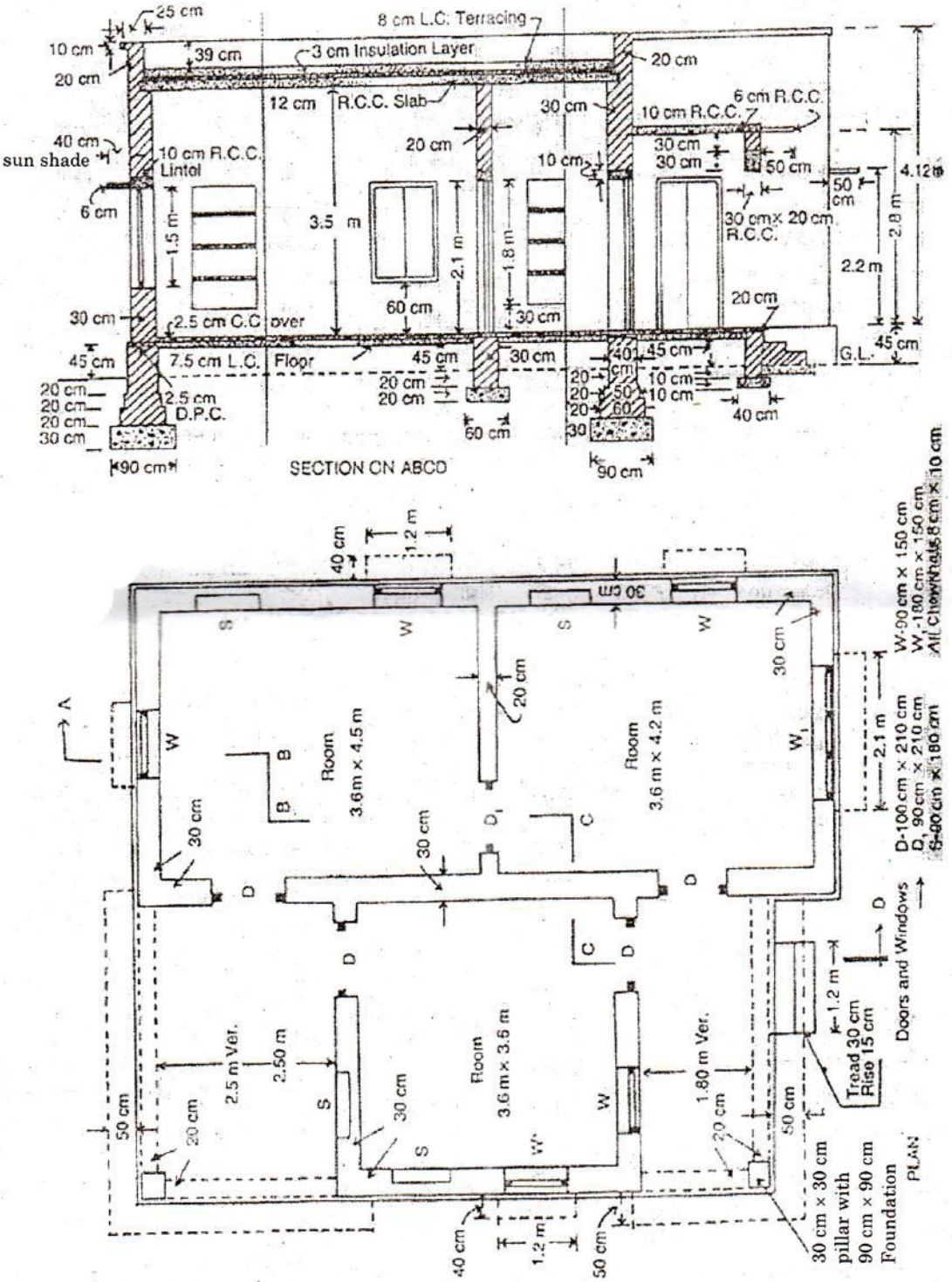

Fig. 11(b)

12. (a) Prepare a detailed estimate of R.C.C. septic tank for 5 users from the drawings, Fig. 12(a) for the following items of work.

(i) Earthwork in excavation in foundation (4)

(ii) Cement concrete in foundation 1 : 4 : 8 with brick ballast. (4)

(iii) R.C.C work 1 : 2 : 4 excluding steel. (4)

(iv) 12 mm cement plaster 1 : 6 inside. (4)

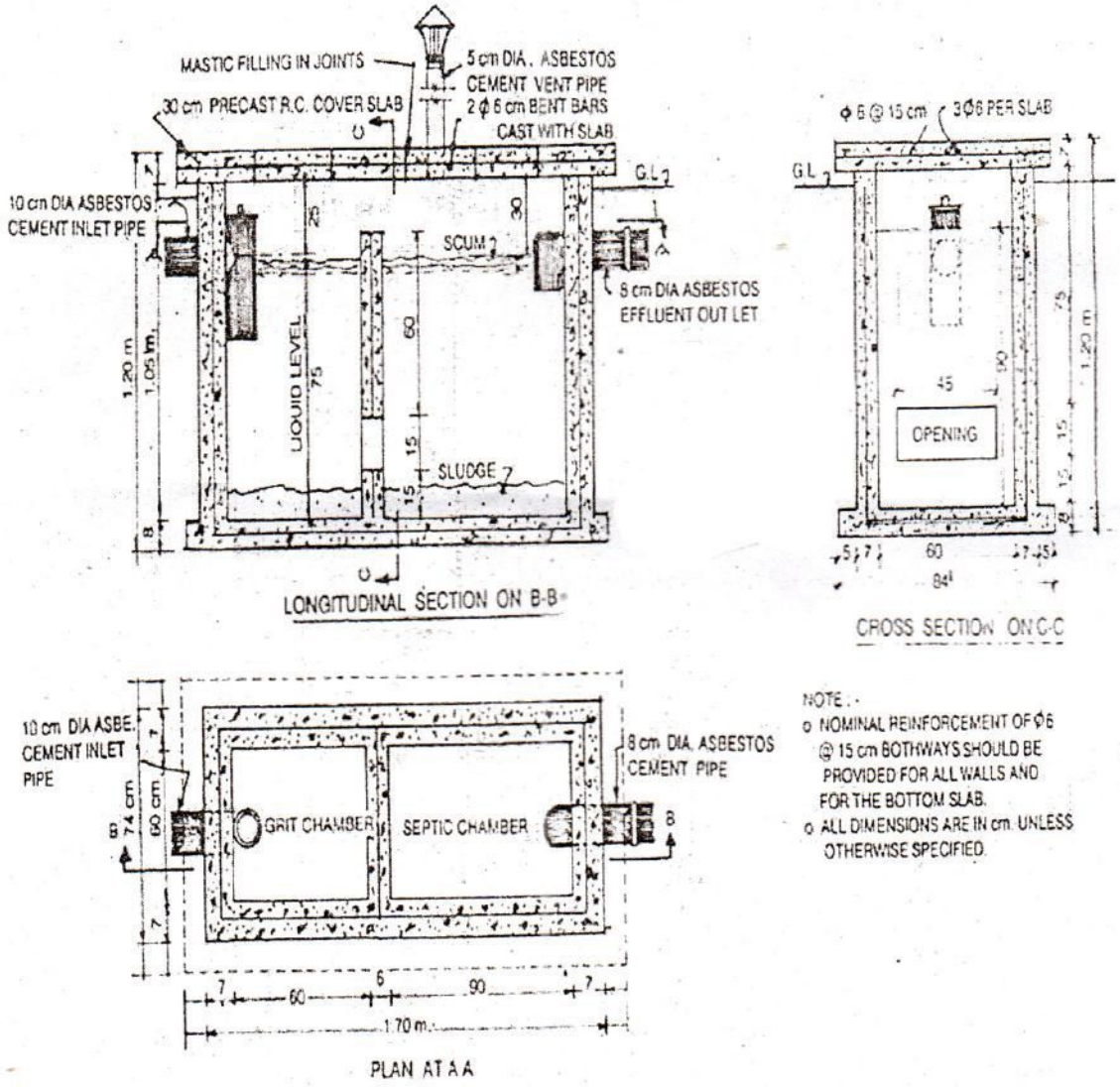

Fig. 12(a)

Or

(b) Prepare a detailed estimate for an arched culvert of two meter span and 5 meter clear road way from the given drawings Fig. 12(b). The general specifications are as follows :

Foundation shall be of cement concrete 1 : 4 : 8 with over burnt brick ballast and local sand. All masonry shall be of first class brickwork in 1 : 5 cement and local sand mortar, except arch work which shall be of 1 : 3 cement and coarse sand mortar. Exposed surface shall be pointed with 1 : 2 cement and local sand mortar. (16)

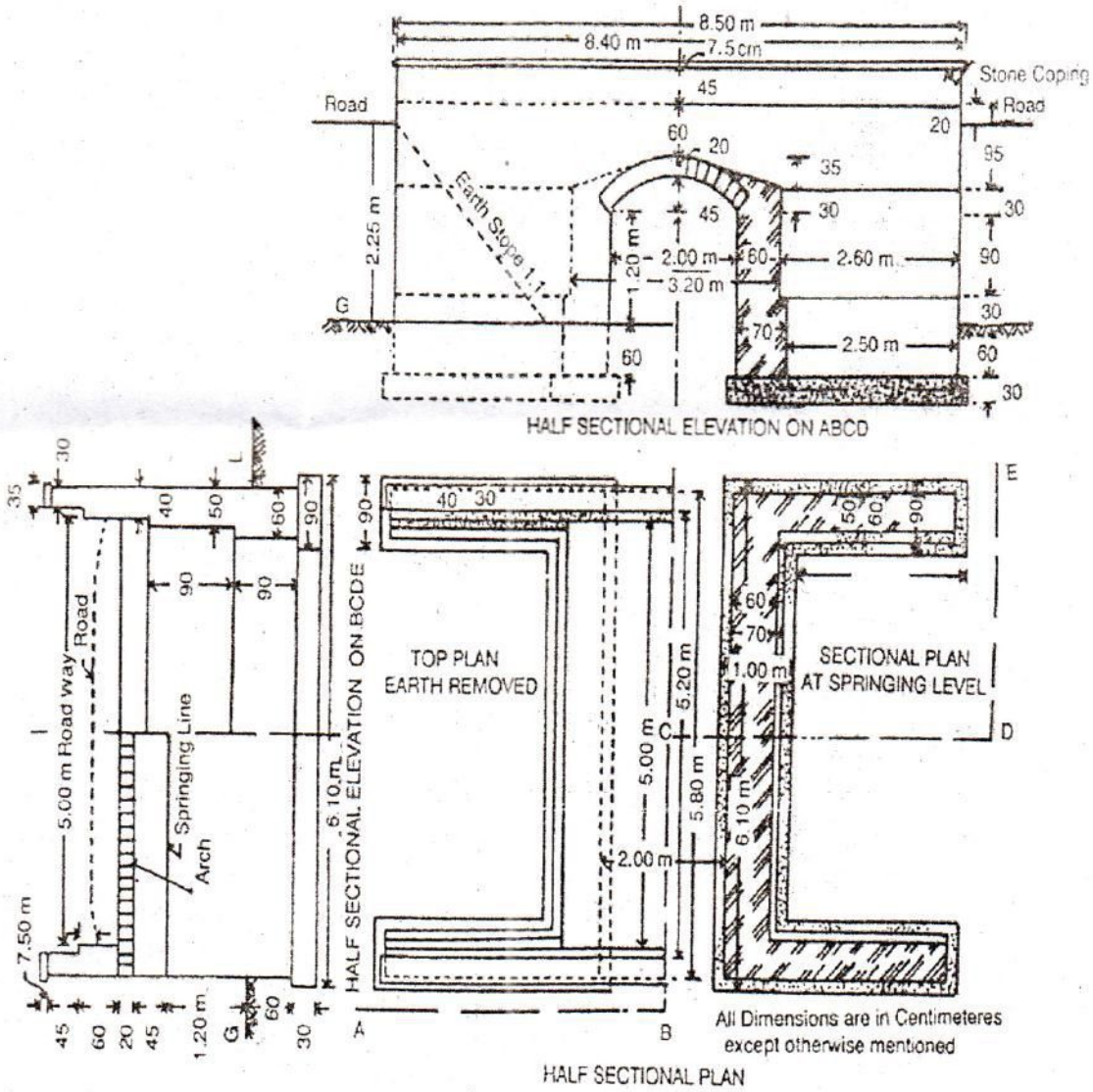

Fig. 12(b)

13. (a) Describe the detailed specifications of various items of works for the following :

(i) Reinforced cement concrete (8)

(ii) Colour washing (2)

(iii) Brickwork I class (2)

(iv) Plastering cement mortar or lime mortar. (4)

Or

(b) (i) Describe briefly about arbitration and tender. (8)

(ii) Explain the various types of contract system. (8)

14. (a) (i) State the following terms :

(1) Scrape value (2)

(2) Salvage value (2)

(3) Market value (2)

(4) Book value (2)

(ii) Describe briefly about methods of valuation. (8)

Or

(b) In a plot of land costing Rs. 20,00,000 a building has been newly constructed at a total cost of Rs. 80,00,000 including sanitary and water supply works, electrical installation, etc. The building consists of four flats for four tenants. The owner expects 8 percent return on the cost of construction and 5 percent return on the cost of land. Calculate the standard rent for each flat of the building assuming. (i) The life of the building as 60 years and sinking fund will be created on 4% interest basis. (ii) Annual repair cost at 1% of the cost of construction. (iii) Other outgoings including taxes at 30% of the net return on the building. (16)

15. (a) Briefly explain the report preparation for estimation of residential building. (16)

Or

(b) Describe the principles for the preparation of water supply scheme. (16)