Reg. No. :

Question Paper Code : 21216

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2013.

Seventh Semester

Civil Engineering

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

(Regulation 2008)

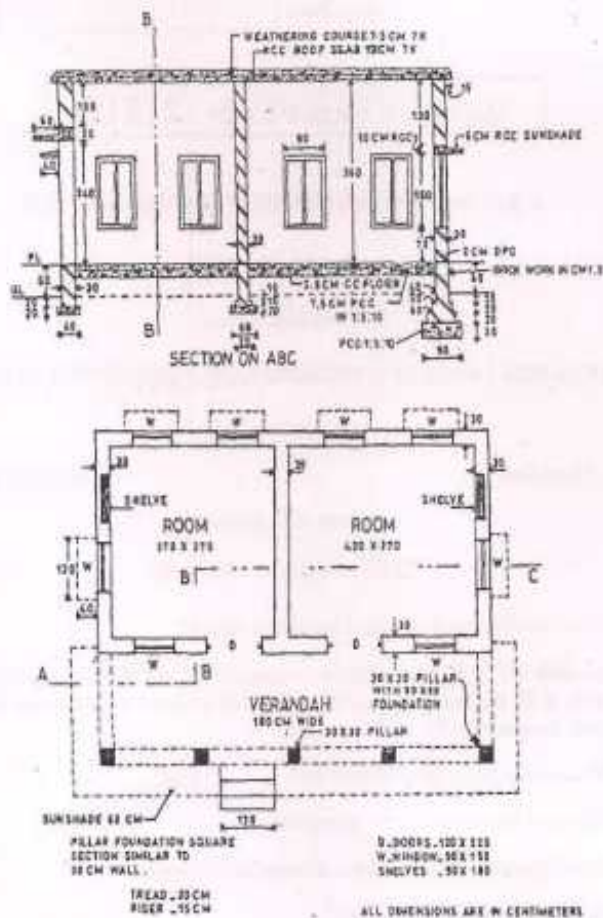Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1.   What are the various types of building estimate?

2.   An arch of 2.50 m span subtends an angle of 80° at the center. The thickness of arch is 30 cm and the breadth of the wall is 40cm. calculate the quantity of arch masonry work?

3.   What is the importance of soak pit?

4.   What are the various types of arches?

5.   State the general specification of damp proof course.

6.   What is earnest money deposit?

7.   What is capitalized value?

8.   Define depreciation.

9.   Give the estimate for the sanitary installation.

10. Give the estimate for the water supply.

PART B — (5 × 16 = 80 marks)

11. (a) Prepare the detailed estimate of two room building with front verandah from the given drawings (fig. 1)
          (i)   Brick work in cement mortar 1:6 in super structure   (6)
          (ii) RCC work in roof slab, lintel beam and sunshade   (6)
          (iii) Doors and Windows.   (4)

SECTION ON ABC

PLAN

Fig. 1

Or

(b) (i) Earth work excavation   (6)

(ii) Brick work in cement mortar 1 : 5 in foundation and basement   (6)

(iii) Ceiling plastering with cement mortar 1 : 3   (4)

12. (a) Prepare a detailed estimate of a septic tank for 25 users from the given in Fig. 2. Septic tank shall be of first class brick work in 1 : 4 cement mortar the foundation and floor shall be of 1 : 3 : 6 cement concrete. Inside of septic tank shall be finished with 12mm cement plaster and floor shall be finished with 20 mm cement plaster with 1:3 mortar mixed with standard water proofing compound..   (16)
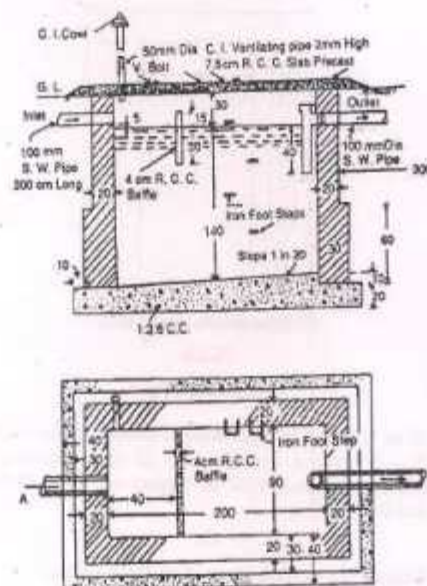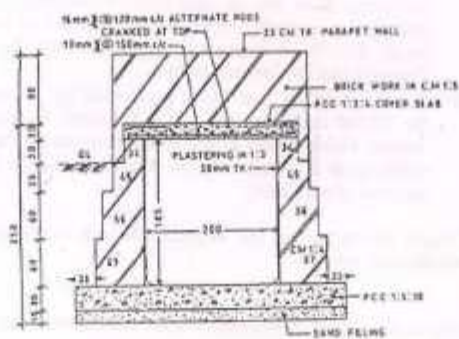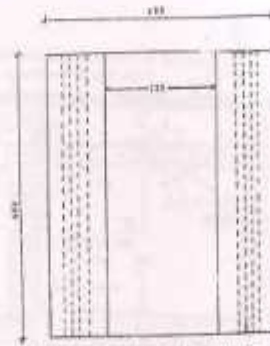
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Fig. 2

Or

(b) Prepare the detailed estimate of box culvert in given drawing (fig.3).

   (i)   Earth work excavation   (2)

   (ii)   Brick work in cement mortar 1 : 4 in abutments   (6)

   (iii) RCC 1 : 2 : 4 cover slab   (2)

   (iv) Brick work in cement mortar 1 : 5 in parapet wall   (4)

   (v)   PCC 1 : 5 : 10 concrete.   (2)

Cross Section of Box Culvert

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All dimensions are in cms.

PLAN

Box Culvert

13. (a) (i) What are the characteristics of goods specifications. (4)
    (ii) Write detailed specification of the following PCC 1:5:10 in foundation, brick work in cement mortar 1 : 6 in super structures and DPC course. (12)

Or

(b) (i) Explain the various types of contract system. (8)
    (ii) Write short notes on arbitration and tender. (8)

14. (a) (i) Explain the purpose of valuation. (6)
    (ii) Write the short notes on scrap value, salvage value, market value, book value and sinking fund. (10)

Or

(b) (i) Calculate the standard rent of a government residential building newly constructed from the following data: cost of land Rs. 10,000. Cost of construction of the building Rs. 40,000. Cost of roads within the compound and fencing Rs. 20,000. Cost of electric installation including fans 8% of the cost of building. Cost of electrical installation including fans 10% of the cost of building. Municipal house tax Rs. 400 per annum. Water tax Rs. 250 per annum. Property tax Rs. 140 per annum. (12)
    (ii) An old building has been purchased by a person at a cost of Rs. 30,000 excluding the cost of the land. Calculate the amount of annual sinking fund at 4% interest assuming the future life of the building as 20 years and the scrap value of the building as 10% of the cost of purchase. (4)

15. (a) Prepare the report on the estimate for the construction of residential building and culvert. (8 + 8)

Or

(b) Prepare the report on the estimate for the construction of road. (16)

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