Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐

V 4082

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2008.

Seventh Semester

Civil Engineering

CE 1402 — ESTIMATION AND QUANTITY SURVEYING

(Regulation 2004)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Differentiate between revised estimate and supplementary estimate.

2. Give the units of measurements for the following items of work.

   (a) Steel reinforcement in R.C.C works

   (b) Partition wall in brick work

   (c) Weathering course

   (d) Damp proof course

3. Why sloping roofs are preferred in hilly areas over slabs?

4. What is Bar-bending schedule?

5. How to estimate bituminous and cement concrete road in general?

6. How to estimate water supply pipe line and sewer line in general?

7. What is rate analysis? Outline the factors to be considered for analysis of rate for various items of work.

8. What is meant by specifications?

9. List out the factors to be considered while valuing an existing building.

10. What is depreciation? What are the methods of determining the depreciation?

PART B — (5 × 16 = 80 marks)

11. (a) Explain different types of estimates and differentiate detailed estimate from cube rate estimate.

Or

(b) Briefly explain the different types of estimates discussing when each one is preferred.

12. (a) Estimate in detail the quantities of the following items of work in a residential building shown in the accompanying sketch No.1

   (i)   Earth work incavation in foundation.   (8)

   (ii) R.C.C (1:2:4) work in roof slab.   (8)

Or

(b) (i)   R.R. masonry in CM 1:4 in foundation.   (8)

    (ii) Wood work for doors and window shutters.   (8)

13. (a) The arches of a road culvert are to be constructed with first class brick work in cement mortar (1:5) and soffit of arches are to be finished with 12mm thick cement plaster (1:3) The culvert consists of two spans of 4.50 m each, rise of the arch is 1.20 m and the thickness of the arch is 40 cm, clear road way in between the parapet is 9.60 m and the thickness of parapet at the road level is 45 cm.

Calculate the quantities of Brick work and cement plaster for the construction and finishing of the arches.

Or

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(b)   The sketch given in Fig. 2 shows the cross section of the retaining wall. Find out for 20 m length of this wall the following:

    (i)   Cement concrete 1:4:8   (8)

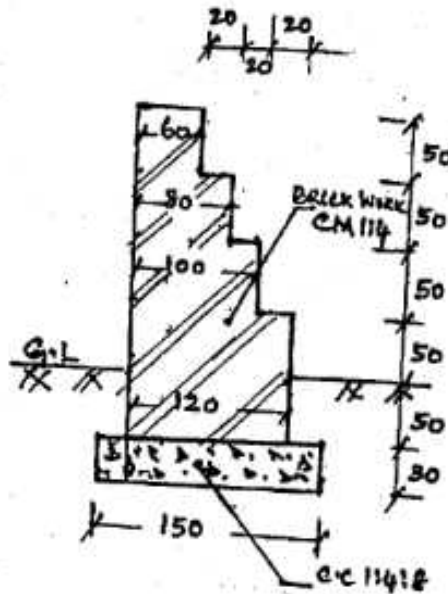   (ii) Brick work in CM 1:4   (8)

Fig. 2

(ALL DIMENSIONS IN CM)

14.   (a)   (i)   Write the types of specifications. Give their advantages and disadvantages.   (8)

       (ii) Write down the detailed specification of the following work :

           Cement concrete in foundation   (4)

           Wood work for doors and windows shutters   (4)

Or

    (b)   (i)   What are the merits and demerits of percentage rate type of engineering contracts?   (8)

       (ii) Assuming current schedule of rates for materials and labour, prepare data for the following items of work :   (8)

           Plastering the walls in CM 1:5, 12 mm thick-for 10m²

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Fig. 2

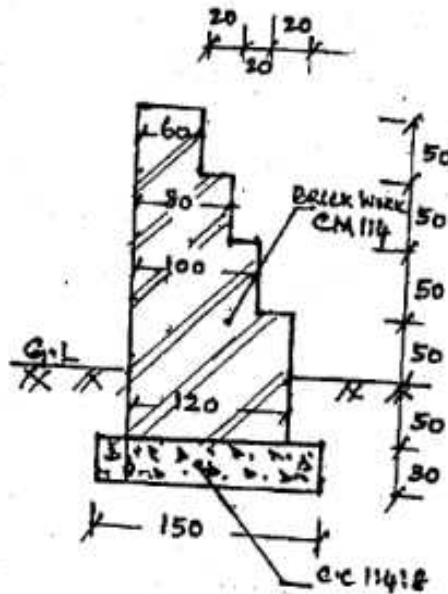(ALL DIMENSIONS IN CM)

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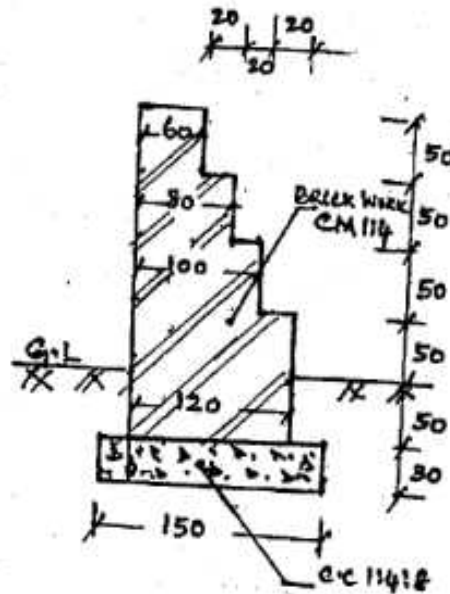(i) Cement concrete 1:4:8   (8)

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