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Question Paper Code : 91255

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2014.

Seventh Semester

Civil Engineering

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

(Regulation 2008/2010)

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

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Mention the types of arches.
2. List the materials used for handrails.
3. Define aqueduct.
4. Write the importance of soak pit.
5. What are the data necessary for the preparation of tenders?
6. Define rate analysis.
7. What is meant by capitalised value?
8. What is depreciation?
9. Write the importance of report preparation.
10. Differentiate “tube wells” and “open wells”.

PART B — (5 × 16 = 80 marks)

11. (a) Estimate by centre line method the quantities of the following items of a two roomed building of size 10.60 m × 6.30m c/c , with a cross wall at the middle of the longer dimension of the building. Thickness of all walls is 1.10m. (i) Earthwork in excavation in foundation. (ii) Lime concrete in foundation. (iii) First class brickwork in cement mortar 1:6 in foundation and plinth, (iv) First class brickwork in lime mortar in superstructure.

Or

- (b) Calculate the quantity of brickwork in a segmental arch of 2.20 m span, 50 cm rise and 30 cm thick. The thickness of the wall is 30 cm.
12. (a) Prepare a detailed estimate of a septic tank for 25 users. The tank shall be of first class brick work in 1:4 cement mortar, the foundations and floor shall be of 1:3:6 cement concrete. Inside of septic tank shall be finished with 20mm cement plaster with 1:3 mortar mixed with standard water proofing compound. Upper and lower portion of soak pit shall be of second class brick work in 1:6 cement mortar and middle portion shall be of dry brick work. Roof covering slabs and baffle walls shall be of precast RCC. The length of the connecting pipe from latrine seat may be taken as 3m. Assume suitable rates.

Or

- (b) A road is to be constructed in a side long ground partly in cutting and partly in banking. The formation width of road is 10 metre, cross slope of ground is 6:1, side slopes in banking 2:1 and in cutting 1.5:1, depth of cutting at the centre is 45 cms althrough. Calculate the quantity of earthwork in banking and in cutting for a length of 200 metre. Estimate the cost of making the formation of the road if the rate of earth work, is Rs 1500.00 per cubic metre.
13. (a) Explain the types of contracts in detail.

Or

- (b) Explain the legal requirements for Tenders.
14. (a) Discuss the importance of valuation.

Or

- (b) Explain the steps involved in the calculation of standard rent for buildings.
15. (a) Explain the principles for report preparation.

Or

- (b) Explain the factors to be considered in the water supply and sanitary installations.