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R 3178

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2007.

Seventh Semester

Civil Engineering

CE 1402 — ESTIMATION AND QUANTITY SURVEYING

(Regulation 2004)

Time : Three hours

Maximum : 100 marks

(Plans attached)

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are different types of estimates?
2. Give the units of measurements for the following items of work
 - (a) Steel reinforcement in R.C.C. works.
 - (b) 11.5 cm thick partition wall in brick work.
3. What is centre line method?
4. What is meant by schedule of Rates?
5. What is meant by the term specifications?
6. What is meant by Tender?
7. What is capitalised value?
8. Define scrap value.
9. What is meant by "Depreciation"?
10. What are different methods of valuation of a building?

PART B — (5 × 16 = 80 marks)

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

Or

- (b) What are the methods of measurements and give the units of measurements for the following items of work?
12. (a) The accompanying sketch with details (Fig. 1) refers to a residential building. Estimate in detail the quantities for the following items of work.
- (i) First class Brick work in CM 1 : 5 in foundation.
 - (ii) R.C.C. work in roof slab.

Or

- (b) (i) Earth work in excavation in foundation.
- (ii) R.C.C. work in lintels and sunshades.
13. (a) A septic tank with soak pit is proposed to be provided as per details shown in the Figure. 2. Estimate in detail the quantities for the following items of work.
- (i) Earth work in excavation in septic tank.
 - (ii) Brick wall with open joints in soak pit.

Or

- (b) (i) Earth work is excavation in soak pit.
- (ii) Brick work in CM 1 : 6 in septic tank.
14. (a) Assuming current schedule of rates for materials and labour, prepare data for the following items of work plain cement concrete 1 : 5 : 10 in foundation – for 1 m³.

Or

- (b) Plastering the walls in CM 1 : 5, 12 mm thick – For 10 m².

15. (a) What are the methods of determining the depreciations? Explain with an example "Depreciated based method of valuation of a property".

Or

- (b) A newly constructed building stands on a plot costing Rs. 60,000. The construction cost of the building is Rs. 2,00,000 and the estimated life of the building is 66 years. The investor desires to have 8% return on the construction cost and 5% return on the land cost. Assuming annual repairs to be at 0.50% of the cost of construction and other outgoing at 30% of the gross rent, calculate the annual rent that will have to be charged for the building.

The annual instalment of the sinking fund for a life of 66 years of the building at 3% may be taken as $\frac{1}{2}$ paise per rupee.
