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B. E/B.TECH (FULL TIME) DEGREE END SEMESTER EXAMINATIONS, APRIL/MAY 2012

CIVIL ENGINEERING BRANCH

SEVENTH SEMESTER – REGULATIONS 2004

**CE 472 VALUATION ENGINEERING**

Time: 3 hours

Max. Marks: 100

Answer All Questions

**Part – A (10x2 = 20 marks)**

1. Write the formula to find out the Sectional Area for computing the quantity of the earthwork excavation for the section shown in Figure 1.
2. When do you go for revised estimate?
3. Write specifications for Earth work excavation for foundation for a residential building.
4. Distinguish between 'Forward Auction and 'Reverse Auction'
5. When do you resort to Turn Key Contract?
6. Who are the 'First Arbitrator' and 'Second Arbitrator' and who appoints them?
7. What do you understand by Esteem Value?
8. State the purpose of Audit Phase of value engineering.
9. What do you understand by obsolescence of machines?
10. An owner of a building saves Rs. 10,000/- per year for 10 years for renovation of the building. At 6% rate of interest what would be his budget for renovation at the end of the 10<sup>th</sup> year?

**Part – B (5x16 = 80 marks)**

11. An immovable property in a suburban area consists of 0.5 Ha of land and 2 buildings measuring 100 Sq m and 200 Sq m of plinth area. Assuming, the year of construction, suitable fixtures and specifications for the buildings, value the property and write a valuation report justifying your method of valuation of the property. (16 marks)

12. A) Take out the quantity for the following from the building plan given in Figure 12
  - (i) Brick work in super structure wall with a ceiling height of 3 m (8 marks)
  - (ii) Inside plastering. (8marks)

OR

12. B) Take out the quantity for the following from the building plan given in Figure 12
  - (i) Outside Plastering for a total height of 4.2 m (8 marks)
  - (ii) Flooring with ceramic tiles (4 marks)
  - (i) Dadoing with ceramic tiles with 15 cm height for all the rooms excepting water closet and bath room (4marks)

13. A) Write specifications for the following based on the plan given in Figure 12
  - (i) Brick work for super structure with C.M. 1:5 (4 marks)
  - (ii) Outside Plastering in C.M. 1:4 12 mm thick (4 marks)
  - (iii) Flooring with ceramic tiles (4 marks)
  - (iv) RCC slab for kitchen platform (4 marks)

OR

13. B) Write in detail with a flow chart the procedure to be followed for calling of tenders from tender publishing to the entrustment of work to an agency. (16 marks)

14. A) What do you understand by price escalation? Write in detail the method adopted to compensate the variation in price of labour and materials during construction. (16 marks)

OR

14. B) Write short notes on the following

- (i) Bid capacity of a contractor (4 marks)
- (ii) Eligibility criteria for bidding (4 marks)
- (iii) Pre qualification (4 marks)
- (iv) Bid validity period and contract period (4 marks)

15. A) Explain how Brain Storming is used as an effective tool in the Creation Phase of Value Engineering. (16 marks)

OR

15. B) How does Improved Factor Comparison Method is better than Factor Comparison Method in evaluating alternative ideas generated in the Creation Phase of Value Engineering? (16 marks)