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| PAPER CODE | V325-223 (ESE) |
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(AY:2024-25) May 2025 (ENDSEM) EXAM

TY B.TECH (SEMESTER - II)

COURSE NAME: Quantity Surveying, Branch: Civil Engg COURSE CODE: CVUA32203
Contracts and Tenders

T.Y. (PATTERN 2020R1)

Time: [1 HR 30 Min]

[Max. Marks: 40]

(*) Instructions to candidates:

- 1) Figures to the right indicate full marks. Use of scientific calculator is allowed
- 2) Use suitable data wherever required
- 3) All questions are compulsory. Solve any two sub questions each from Questions 1, 2, 3 and 4

| Q. No. | Question Description | Max. Marks | CO mapped | BT Level |
|--------|---|------------|-----------|------------|
| Q.1 | a) Figure 1-a. shows plan and section of residential building. Determine the quantities of following item By PWD Method or Center line Method (Assume any suitable data): i) Excavation in foundation; ii) UCR Masonry in CM (1:6) in foundation | [5] | 1 | Apply |
| | b) Prepare an approximate estimate for a 2-story R.C.C. building using following data: Floor area on each floor = 200sqm; Built-up area = 1.2 times the floor area; Plinth area rate = 1800/sqm; Cost of water supply, drainage, etc. = 16% of construction cost; Work charge establishment & contingencies = 8% of total cost | [5] | 1 | Apply |
| | c) Differentiate between Supplementary and revised estimate. Explain the purpose of preparing detailed estimate. | [5] | 1 | Understand |
| Q2 | a) What is the necessity of drafting specification for Civil engineering work? Explain briefly: i) General specification; ii) Detailed specification | [5] | 2 | Understand |
| | b) Workout unit rate of the R.C.C work in CCM20 (1:1.5:3). Following rates for material & labor may be assumed. a) Cement = Rs. 300/bag; b) Sand = Rs. 1750/m ³ c) Aggregate = Rs. 800/m ³ ; d) Steel = Rs. 68,000/MT e) Mason = Rs. 700/day; f) Mazdoor = Rs. 500/day; g) Bhisti = Rs. 350/day. Assume Profit and overheads = 10%; water charges = 1.5%; T&P = 0.5% and Labour constants-mason: 0.25; mazdoor: 2.5; bhisti: 0.8. density | [5] | 2 | Apply |

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| | <p>of steel = 7850 kg/cu.m and Reinforcement is 1% of concrete.</p> <p>c) Determine the rate per unit for the item of UCR masonry in c.m. (1:6) in superstructure. Use following rates for materials and labour: Rubble: Rs500/cu.m.; Sand: Rs1500/cu.m.; cement: Rs 270/bag; mazdoor: Rs300/day; mason: Rs600/day; head mason: Rs800/day Labour constants - head mason: 0.4; Mason: 0.8; mazdoor: 2.0. Profit and overheads = 10%; water charges = 1.5%; T&P = 0.5%. Note: 0.42 cu.m. dry mortar required for 1 cu.m. of UCR masonry.</p> | [5] | 2 | Apply |
| Q3. | <p>a) List different methods of calculating depreciation. Explain any one method of calculating depreciation stating formula used, merits & demerits.</p> <p>b) A concrete mixer is purchased at Rs. 1,50,000/-. Assume a salvage value to be Rs. 18,750/- after 5 years. Calculate depreciation for each year by: i) Straight line method; ii) Constant percentage method.</p> <p>c) Determine the present value of a building including land using following data: Income available from property = Rs 96,000 per annum Life of property = 80 years The rate of redemption is 6% and rate of interest on government securities is 5% All outgoings = 35% of gross income. Present cost of land Rs 30 lakhs</p> | [5] | 3 | Understand |
| | <p>b) A concrete mixer is purchased at Rs. 1,50,000/-. Assume a salvage value to be Rs. 18,750/- after 5 years. Calculate depreciation for each year by: i) Straight line method; ii) Constant percentage method.</p> | [5] | 3 | Apply |
| | <p>c) Determine the present value of a building including land using following data: Income available from property = Rs 96,000 per annum Life of property = 80 years The rate of redemption is 6% and rate of interest on government securities is 5% All outgoings = 35% of gross income. Present cost of land Rs 30 lakhs</p> | [5] | 3 | Apply |
| Q.4 | <p>a) What is meant by a "Tender"? State various method of inviting tenders & explain any one method.</p> <p>b) What are the powers & duties of arbitrator?</p> <p>c) Explain Earnest money Deposit & Security Money with respect to: i) Necessity & when collected; ii) Percentage & Mode of Collection; iii) Refund to Contractor</p> | [5] | 4 | Understand |
| | <p>b) What are the powers & duties of arbitrator?</p> | [5] | 4 | Understand |
| | <p>c) Explain Earnest money Deposit & Security Money with respect to: i) Necessity & when collected; ii) Percentage & Mode of Collection; iii) Refund to Contractor</p> | [5] | 4 | Understand |

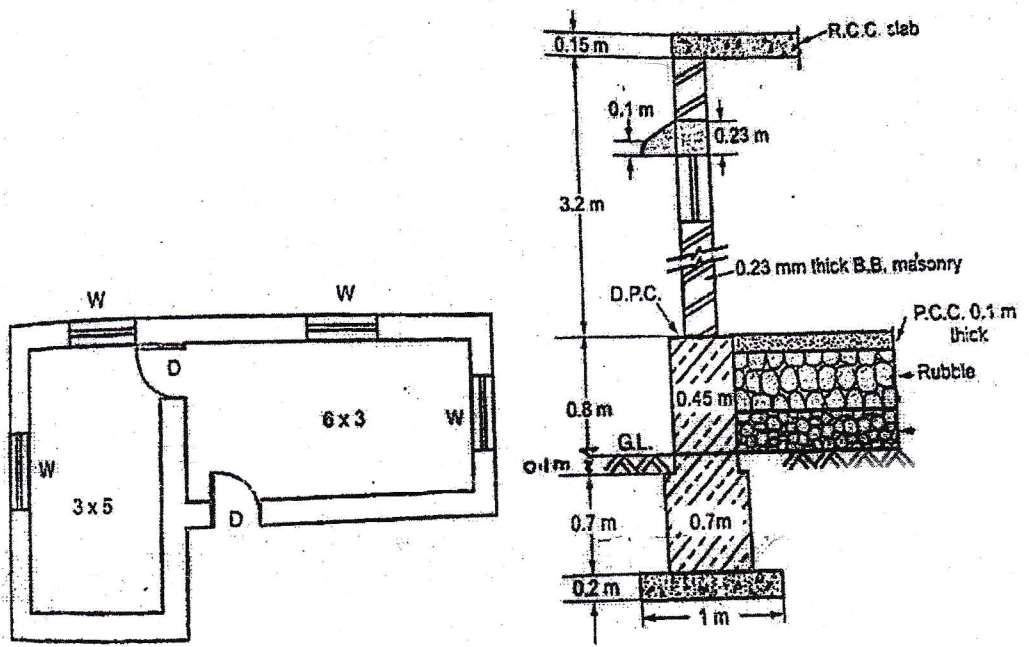


Fig.No. 1-a.