

**BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT**

(Autonomous Institute under Visvesvaraya Technological University, Belagavi)

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Course Code 

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Seventh Semester B.E. Degree Examinations, February 2025

**QUANTITY SURVEY & CONTRACT MANAGEMENT**

Duration: 3 hrs

Max. Marks: 100

- Note:** 1. Answer any FIVE full questions, choosing ONE full question from each module.  
2. Missing data, if any, may be suitably assumed

<u>Q. No</u>	<u>Question</u>	<u>Marks</u>	<u>(RBTL:CO:PI)</u>
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**Module-1**

1. Prepare detailed and abstract estimate for the following items of works for plan given in Fig. Q1. 20 (3 : 1 : 2.2.1)
- (i) Lime concrete in foundation @ Rs 220/cum.  
(ii) Earthwork in excavation @ Rs 350 /cum  
(iii) Brick work in super structure @ Rs 320/cum.  
(iv) Damp proof course in plinth. @ Rs 18/sqm.  
(v) Brick work in Foundation and plinth @ Rs 320/ cum.

(OR)

2. Prepare detailed estimate of RCC roof slab of 3 m clear span and 6m long from the given drawings, bar bending schedule for the Fig. Q 2. 20 (3 : 1 : 2.2.1)
- Take RCC cost @ Rs 675/- per cum and Steel @ Rs 515/- per quintal.

**Module-2**

3. Estimate the cost of earth work for a portion of a road from the following **Table 1**, using mean sectional area method. 20 (3 : 2 : 2.2.1)
- Road width at the formation level is 8 m. Side slopes 2:1 in banking and 1.5:1 in cutting. Length of chain is 30 m. Take rate of earthwork as Rs 275/- per cum in cutting and Rs 350/- per cum in banking.

**Table 1**

Chainage	20	21	22	23	24	25	26	27	28	29	30
RL of ground level	71.20	71.25	70.90	71.25	70.80	70.45	70.20	70.35	69.10	69.45	69.70
Formation level	70.0	Upward gradient of 1:200									

(OR)

4. Prepare detailed estimate of a manhole from the drawings given in Fig. Q 4 and general specification are given below: 20 (3 : 2 : 2.2.1)
- (i) Earthwork in excavation @ Rs 350/- per cum.  
(ii) Cement concrete 1:3:6 with brick ballast @ Rs 300/- per cum.  
(iii) 1<sup>st</sup> class brick work in 1:4 cement mortar @ Rs 345/- per cum  
(iv) 20mm thick plastering 1:3 in floor and channels neat cement finished @ Rs 15/- per sqm  
(v) RCC Slab including reinforcement @ Rs 675/- per cum  
(vi) Iron foot steps fixed in position @ Rs 2 /- per No's

**Note: (RBTL - Revised Bloom's Taxonomy Level: CO - Course Outcome: PI- Performance Indicator)**

### **Module-3**

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|----|----|---|----|----------------|
| 5. | a. | What are the specifications? What are the objectives of writing specifications? | 04 | (2 :3 : 2.1.1) |
|    | b. | Write a note on general specification of a 1 <sup>st</sup> class building.      | 08 | (2 :3 : 2.1.1) |
|    | c. | Explain detailed specifications for cement concrete in foundation.              | 08 | (2 :3 : 2.1.1) |

**(OR)**

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|----|----|--|----|----------------|
| 6. | a. | Explain essentials in specifications for building works.                   | 04 | (2 :3 : 2.1.1) |
|    | b. | Explain detailed specifications of aluminium partitions.                   | 08 | (2 :3 : 2.1.1) |
|    | c. | Explain detailed specifications for Earthwork in excavation for soft soil. | 08 | (2 :3 : 2.1.1) |

### **Module-4**

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|----|----|---|----|----------------|
| 7. | a. | Define rate analysis and explain purpose rate analysis.   | 04 | (2 :4 : 2.1.1) |
|    | b. | Working out the quantities and rates for 1 unit for 1 <sup>st</sup> class brick work with CM 1:6. | 08 | (3 :4 : 2.2.1) |
|    | c. | Working out the quantities and rates for 1 unit. For random rubble masonry with CM 1:6.           | 08 | (3 :4 : 2.2.1) |

**(OR)**

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|----|----|--|----|----------------|
| 8. | a. | Explain the factors affect the rate analysis.  | 04 | (2 :4 : 2.1.1) |
|    | b. | Working out the quantities and rates for 1 unit for 2 cm thick damp proof course (DPC) with cement mortar 1:2. | 08 | (3 :4 : 2.2.1) |
|    | c. | Working out the quantities and rates for 1 unit for 12 mm thick cement plastering with cement mortar 1:4.      | 08 | (3 :4 : 2.2.1) |

### **Module-5**

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|----|----|---|----|----------------|
| 9. | a. | Define contract and explain different types of contract with advantage and disadvantages. | 10 | (2 :5 : 2.1.1) |
|    | b. | Define tender and explain the process of tendering.                                       | 10 | (2 :5 : 2.1.1) |

**(OR)**

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|-----|----|--|----|----------------|
| 10. | a. | Explain the following terms.<br>(i) EMD and Security deposit.<br>(ii) Mobilization advance.<br>(iii) Delays and Compensation.<br>(iv) Secured advance and Liquidated damages.<br>(v) Measurement book. | 10 | (2 :5 : 2.1.1) |
|     | b. | Define quality control in contracts (QCC). List out the steps involved in QCC.   | 05 | (2 :5 : 2.1.1) |
|     | c. | Define right of contractor refund of deposit.  | 05 | (2 :5 : 2.1.1) |

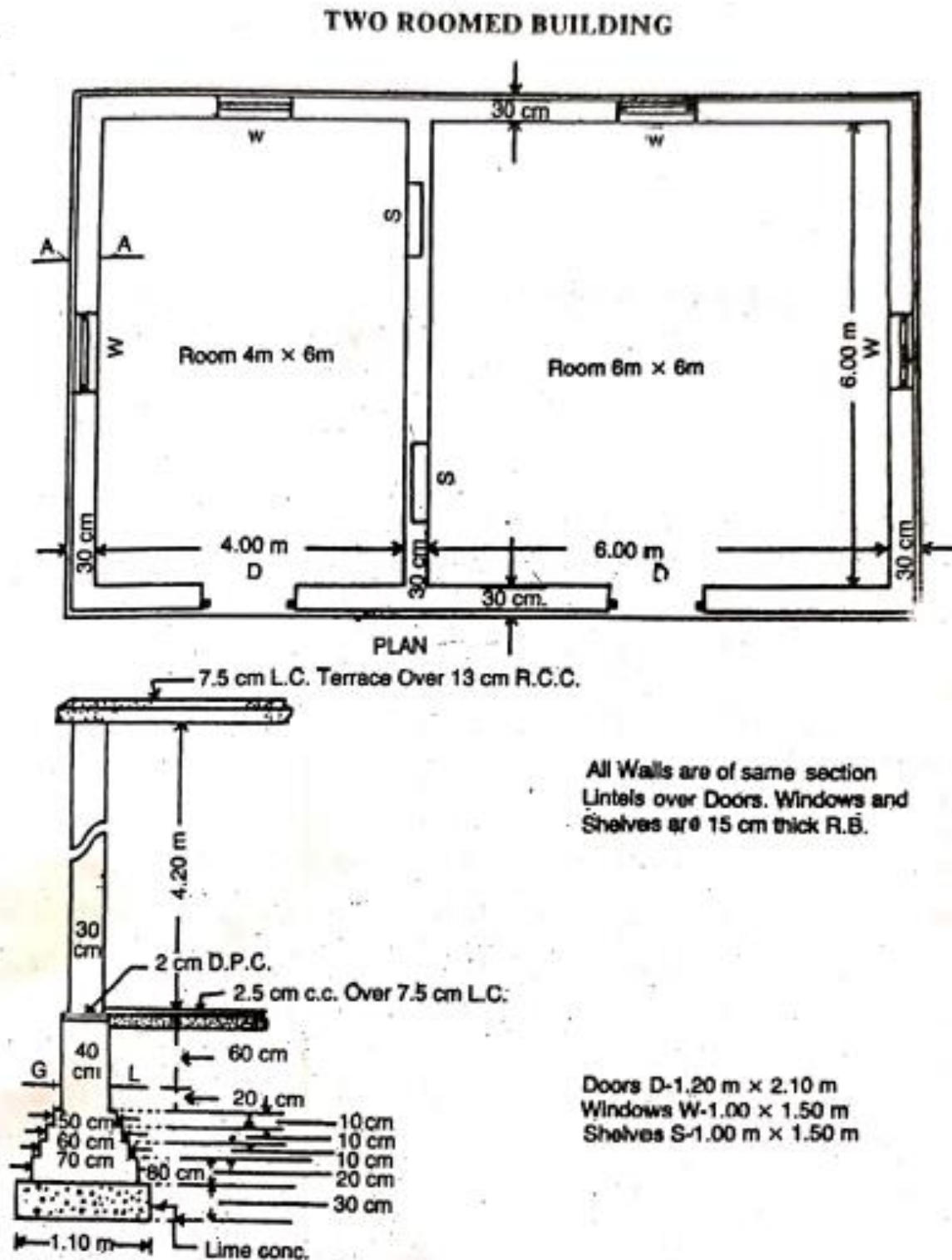


Fig. Q1.Two roomed building

