CBCS SCHEME

USN | | | | | | | | | | |

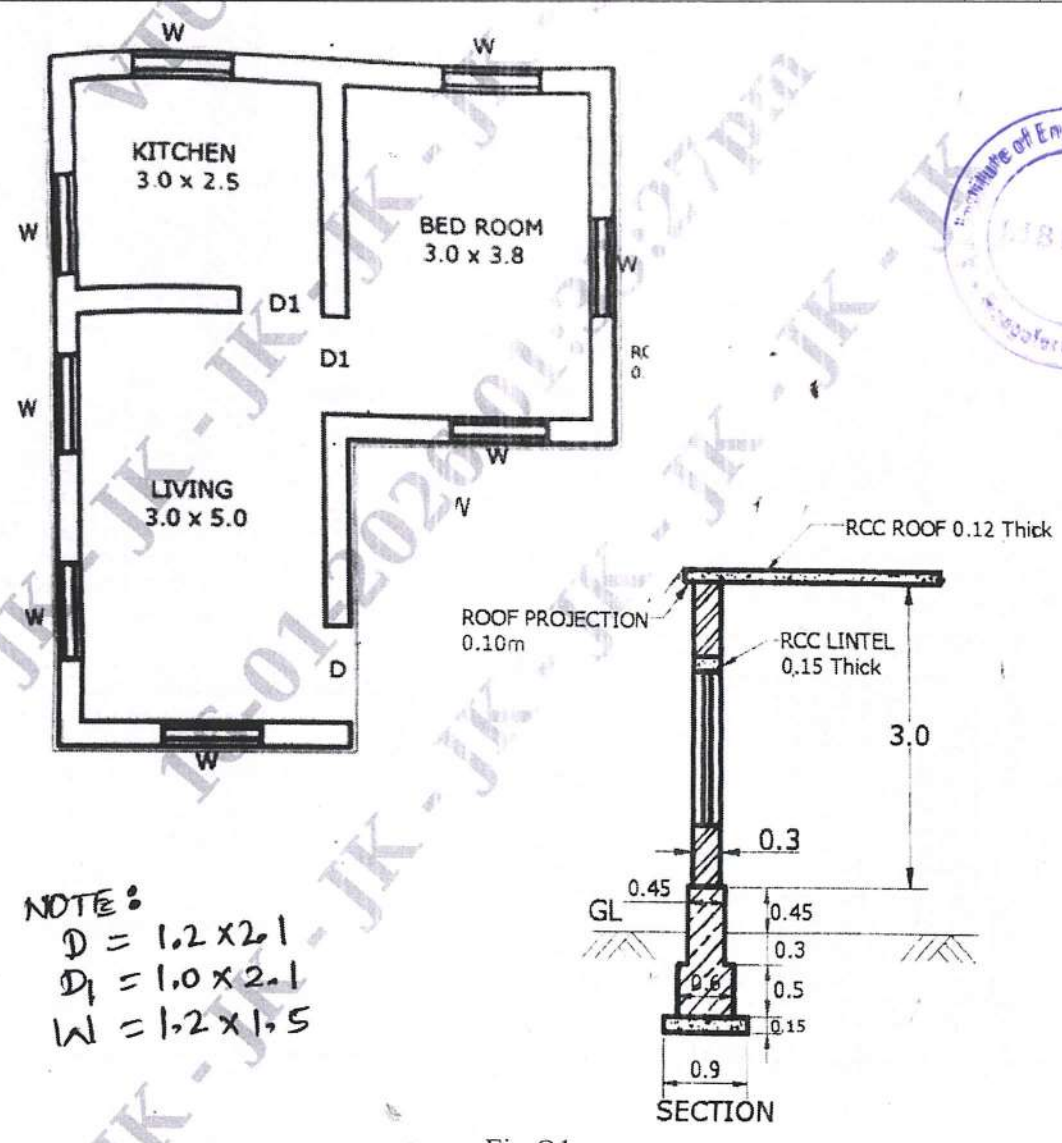
BCV702

# Seventh Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
## Estimation and Contract Management

Time: 3 hrs. Max. Marks:100

***Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.***
***2. M : Marks , L: Bloom's level , C: Course outcomes.***

| | | Module – 1 | M | L | C |
|---|---|---|---|---|---|
| 1 | | The details of two room building is shown in Fig.Q1. Estimate the quantities and cost of the following items of work :<br>i. Earthwork in excavation at 450 Rs/$m^3$<br>ii. UCR Masonry in CM 1 : 6 in foundation and plinth at 5000 Rs/$m^3$<br>iii. Brickwork in CM 1 : 5 in superstructure of 30 cm wall at 7000 Rs/$m^3$. | 20 | L3 | CO1 |




NOTE:
D = 1.2 x 2.1
$D_1$ = 1.0 x 2.1
W = 1.2 x 1.5

Fig.Q1

**OR**

| | | | | | |
|---|---|---|---|---|---|
| 2 | | What are the different types of Estimate? Explain in detail, any four different types of estimates. | 20 | L2 | CO1 |

**Module – 2**

| | | | | | |
|---|---|---|---|---|---|
| 3 | | The details of Manhole is given in Fig.Q.3. Estimate the quantities of the following items :<br>i. Earthwork Excavation in foundation<br>ii. PCC 1 : 4 : 8 for bed concrete<br>iii. BBM in CM 1 : 4 for side walls<br>iv. RCC 1 : 1½ : 3 for cover slab. | 20 | L3 | CO2 |

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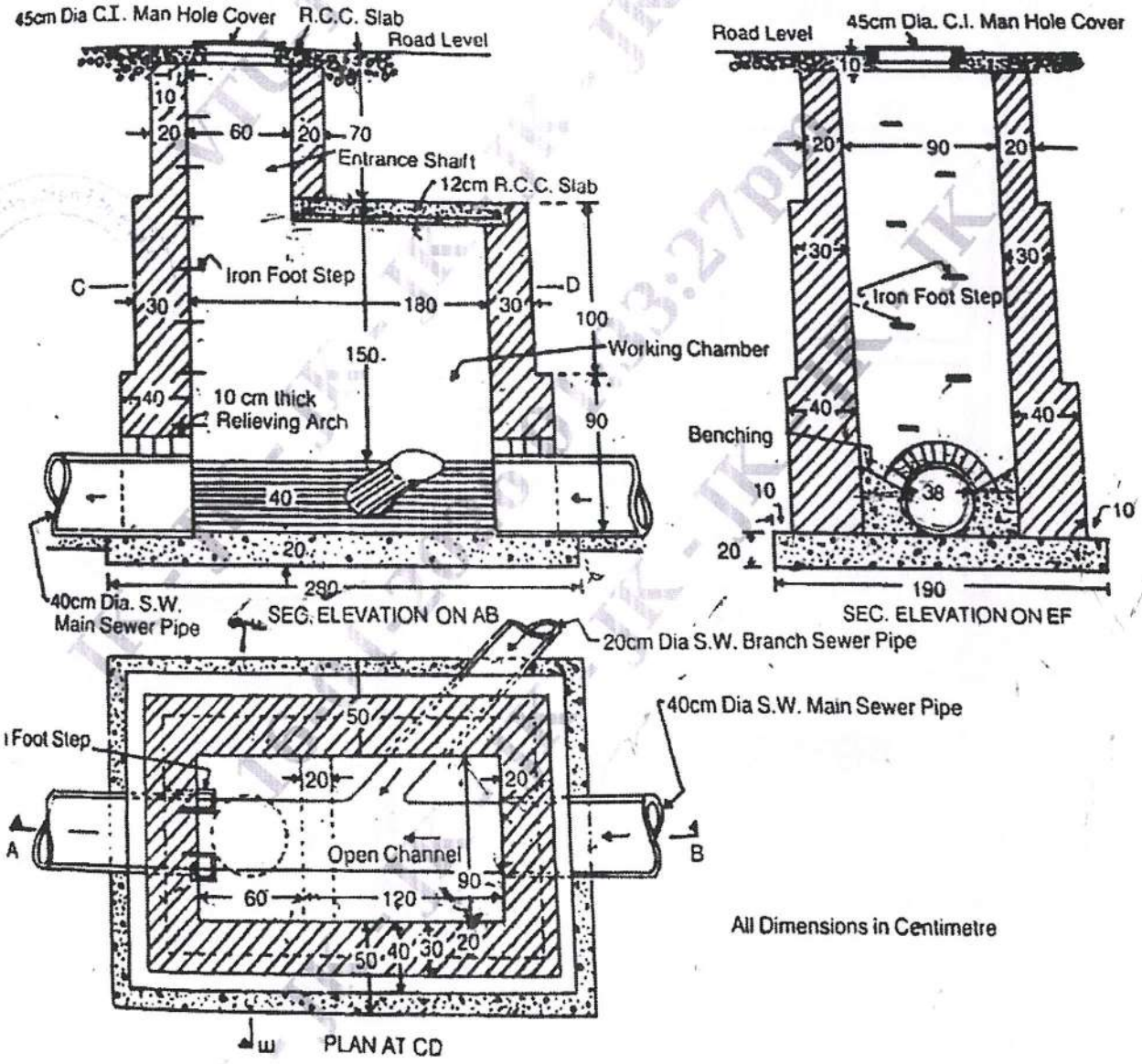



Fig.Q.3

**OR**

| | | | | | |
|---|---|---|---|---|---|
| 4 | | Estimate the cost of Earthwork for a portion of road for 400 m length from the following data : Formation width of the road is 10 m, Side slopes are 2 : 1 in banking 1½ : 1 in cutting. | 20 | L3 | CO2 |

| Station | Distance in meter | RL of Ground | RL of formation |
|---|---|---|---|
| 25 | 1000 | 51.00 | 52.00 |
| 26 | 1040 | 50.90 | |
| 27 | 1080 | 50.50 | |
| 28 | 1120 | 50.80 | |
| 29 | 1160 | 50.60 | Downward Gradient of 1 in 200 |
| 30 | 1200 | 50.70 | |
| 31 | 1240 | 51.20 | |
| 32 | 1280 | 51.40 | |
| 33 | 1320 | 51.30 | |
| 34 | 1360 | 51.00 | |
| 35 | 1400 | 50.60 | |

**Module – 3**

| | | | | | |
|---|---|---|---|---|---|
| 5 | | Write detailed specification for the following :<br>i. Earthwork excavation for foundation<br>ii. First class Brick work in CM 1 : 6<br>iii. Plastering work in CM 1 : 6, 12 mm thick<br>iv. RCC 1 : 2 : 4 in roof slab. | 20 | L2 | CO3 |

**OR**

| | | | | | |
|---|---|---|---|---|---|
| 6 | | Carryout the rate analysis for the following :<br>i. CC 1 : 4 : 8 for foundation bed<br>ii. First class brickwork in CM1 : 6 in superstructure<br>iii. 12 mm thick cement plastering in CM 1 : 6<br>iv. RCC 1 : 2: 4 for roof slab. | 20 | L2 | CO3 |

**Module – 4**

| | | | | | |
|---|---|---|---|---|---|
| 7 | | List the types of contract. Briefly explain any three types of contract. | 20 | L2 | CO4 |

**OR**

| | | | | | |
|---|---|---|---|---|---|
| 8 | | Write short notes on :<br>i. Administrative Approval<br>ii. Tender documents<br>iii. E-Tendering System<br>iv. Turnkey Operation. | 20 | L2 | CO4 |

**Module – 5**

| | | | | | |
|---|---|---|---|---|---|
| 9 | | Write short notes on :<br>i. Liquidated Damages and Bonus<br>ii. Measurement Book<br>iii. Breach of Contract<br>iv. Arbitration. | 20 | L2 | CO5 |

**OR**

| | | | | | |
|---|---|---|---|---|---|
| 10 | a. | Define the terms :<br>i) Valuation ii) Book value iii) Depreciation iv) Sinking fund. | 10 | L2 | CO5 |
| | b. | The building fetches a gross income of Rs. 1500/- per month. Workout the capitalized value on the basis of 6% net yield, if all out going amount is equal to Rs.3000/- per annum. | 10 | L2 | CO5 |

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