

# CBCS SCHEME

18CV71



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## Seventh Semester B.E. Degree Examination, June/July 2023 Quantity Surveying and Contract Management

Max. Marks: 100

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

### Module-1

- 1 Estimate the cost of RCC roof slab C.C. 1:1.5:3 over a room of internal dimension 3.2m × 4.2m. Calculate the quantity of concrete and steel reinforcement.  
Given : Slab thickness = 150mm, Two way slab,  
Steel requirement : Main steel = 10mm  $\phi$  @ 150mm c/c,  
Secondary steel = 8mm  $\phi$  @ 200 mm c/c. Alternate bars cranked at one end only.  
TMT bars used, hence provide L-bind at ends. Wall thickness = 200mm,  
Cost of concrete = Rs. 14,000/m<sup>3</sup>, Cost of steel bars = Rs. 75/kg . (20 Marks)

OR

- 2 The details of proposed office building is as shown in Fig.Q2. Work out the quantities and costs for the following items of work:
- i) Earth work excavation for foundation in hard soil at Rs. 300/m<sup>3</sup>.
  - ii) S.S.M in CM 1:4 for foundation and basement at Rs.4250/m<sup>3</sup>
  - iii) First class brick work in superstructure in CM 1:6@ Rs.7000/m<sup>3</sup>.
  - iv) RCC roof slab M20 at Rs. 5000/m<sup>3</sup>
- (20 Marks)

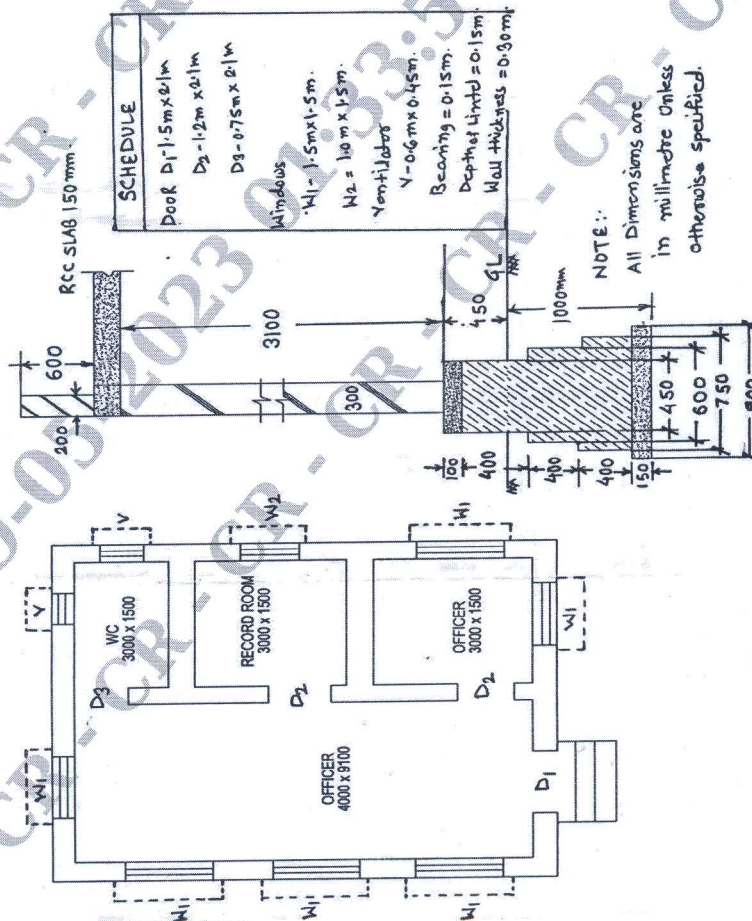


Fig.Q2

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

**Module-2**

- 3 The details of manhole is shown in Fig.Q3. Estimate the quantities for the following item of work.

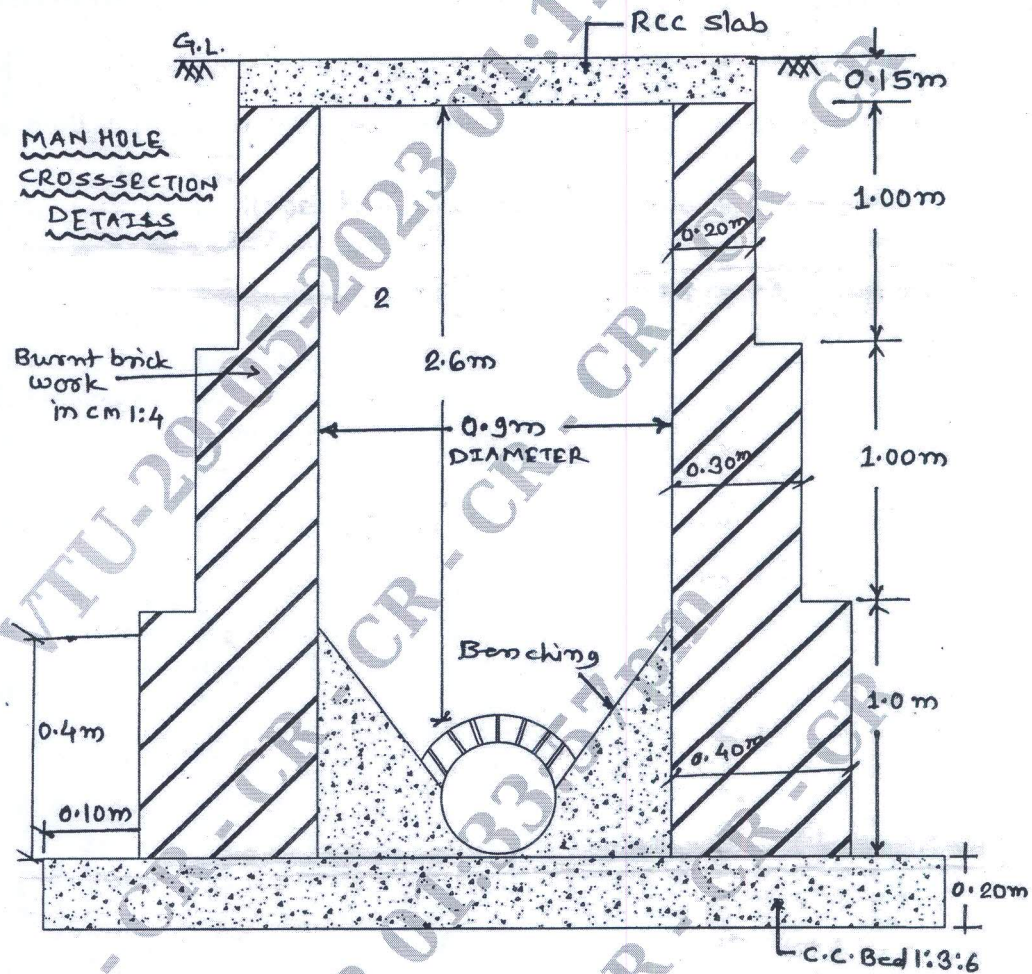


Fig.Q3

- i) Earthwork excavation in foundation.
- ii) Cement concrete bed 1:3:6 for foundation.
- iii) First class brick work with CM 1:4
- iv) RCC slab cover in CC 1:1.5:3

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(20 Marks)

**OR**

- 4 Estimate the quantity of earthwork for a portion of road work from the following data, using mid sectional area method. Assume formation width = 4m ; side slope 2 : 1 in filling ; side slope 1.5:1 in cutting.

Chainage (m)	0	40	80	120	160	200	240	280
RL of ground (m)	100.6	100.2	99.8	100.2	100.8	101.9	102.4	102.5
RL of formation level (m)	101.00	Raising gradient 1 to 400 →						

(20 Marks)

**Module-3**

- 5 Write detailed specifications for following :
- Bed concrete for foundation CC 1:3:6
  - First class brick work in CM 1:6
  - Plastering work in CM 1:6, 12mm thick
  - Painting work
- (20 Marks)

**OR**

- 6 Analyse rates from first principle for following :
- Coarse Rubble Masonry for foundation in CM 1:6
  - First Class Brick work in CM 1:5 in superstructure.
  - 12 mm thick internal plastering in CM 1:4 for brick wall.
  - Domp proof course 25 mm thick in CC 1:1.5:3
- (20 Marks)

**Module-4**

- 7 a. Write short notes on :
- Administrative Approval
  - Technical Sanction
- b. Describe the essentials of contracts.
- (10 Marks)  
(10 Marks)

**OR**

- 8 a. Write a short note on :
- Ernest Money deposit
  - Tender and its process
- b. Define the terms :
- Quotation
  - Contractor
  - Running bill
  - Retention Money
  - Liquidated damage
- c. Discuss the circumstances under which lowest tender may be rejected.
- (10 Marks)  
(05 Marks)  
(05 Marks)

**Module-5**

- 9 a. What is measurement book? What are the rules to be followed in recording measurement book? (10 Marks)
- b. Explain briefly the following :
- Secured Advance
  - Arbitration During Disputes
- (10 Marks)

**OR**

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- 10 a. Define : Value , Cost and Price (03 Marks)
- b. Explain briefly methods of valuation of buildings. (07 Marks)
- c. A building with a buildup portion of 20m × 15m is situated at a prime area of city. The building is of first class type and provided with all facilities Age of building is 30 years. Workout the valuation of the property. Area of land is 500 m<sup>2</sup>. Assume plinth area rate as Rs. 25,000/m<sup>2</sup> life of building 100 years and cost of land Rs. 4000/m<sup>2</sup>. (10 Marks)

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