

# CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

21CV71



## Seventh Semester B.E./B.Tech. Degree Examination, June/July 2025 Quantity Survey and Contract Management

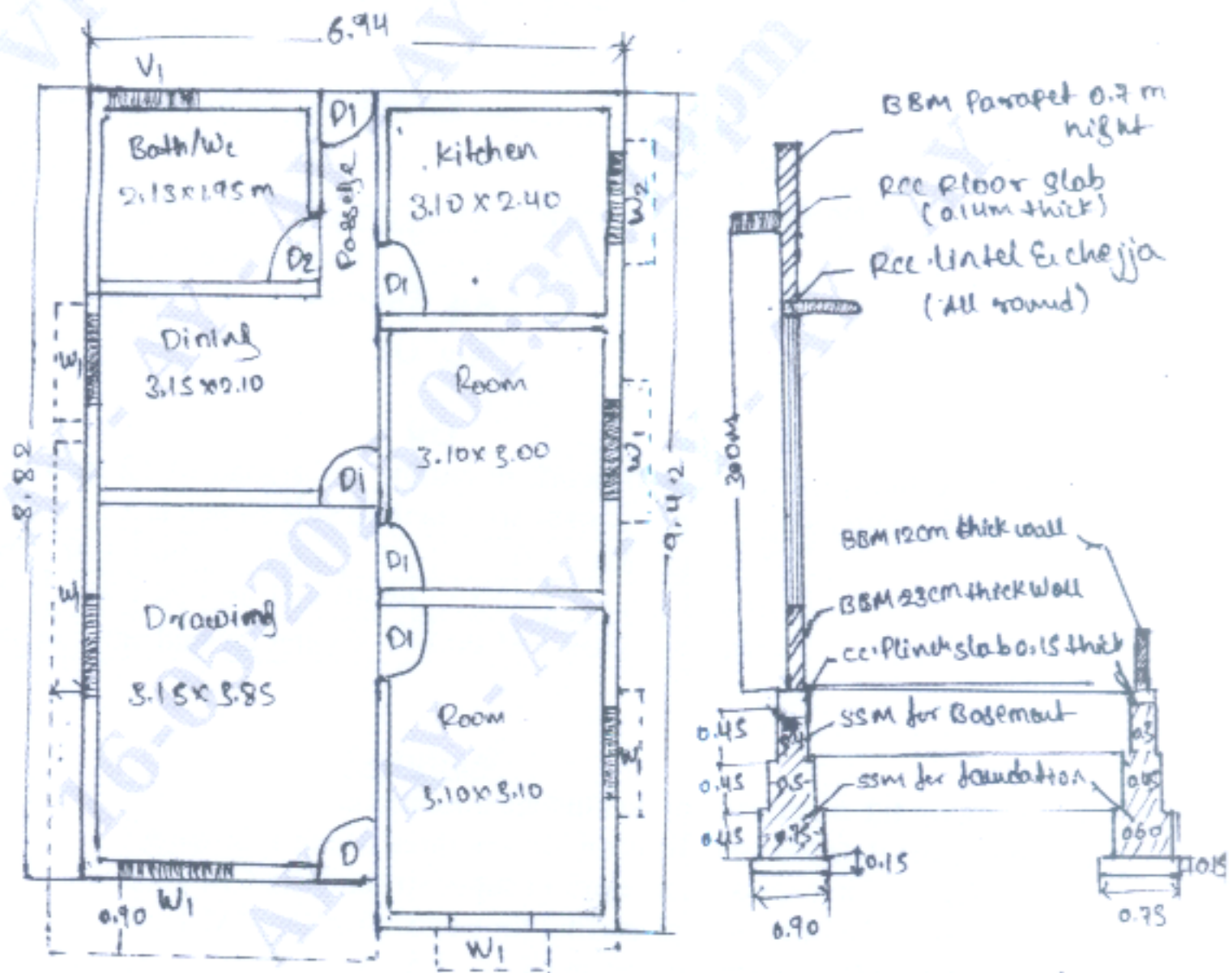
Max. Marks: 100

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

### Module-1

- 1 Prepare a detail estimate for a residential building shown in Fig. Q1 for the following items of work :
- (i) Center line calculations.
  - (ii) Earth work in excavation for foundation at Rs.170/m<sup>3</sup>.
  - (iii) Size stone masonry in C.M 1 : 6 for Foundation and basement at 4000 /m<sup>3</sup>.

Schedule of openings	
Doors :	D 1.00 x 2.10
	D <sub>1</sub> 0.90 x 2.10
	D <sub>2</sub> 0.75 x 2.10
Windows :	W <sub>1</sub> 1.52 x 1.57
	W <sub>2</sub> 1.52 x 0.90
	W <sub>3</sub> 1.22 x 0.60



All Dimensions are in meters

Foundational Details for  
Main & Partition Walls

Fig. Q1  
1 of 3

(20 Marks)

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.

OR

- 2 Estimate the cost at RCC roof slab in CC 1 : 1.5 : 3 over a room at internal dimension  $3.2 \times 4.2\text{m}$ . Calculate the quantity at concrete and steel reinforcement.  
 Given : Slab thickness = 150 mm,  
 Two way slab steel reinforcement : Main steel =  $10\text{ mm}\phi @ 150\text{ mm C/C}$ ,  
 Secondary steel :  $8\text{ mm}\phi @ 200\text{ mm C/C}$ .  
 Alternate bars cranked at one end only. Cost at concrete =  $\text{Rs.}12000/\text{m}^3$ .  
 Cost at steel bars =  $\text{Rs.}50/\text{kg}$ . (20 Marks)

**Module-2**

- 3 The details of septic tank is given in Fig. Q3. Find the its quantities of the following items :  
 a. Earthwork excavation for foundation in hard soil.  
 b. PCC 1 : 4 : 8 (Bed concrete)  
 c. BBM in CM 1 : 6 for walls  
 d. RCC 1 : 2 : 4 for cover slab.

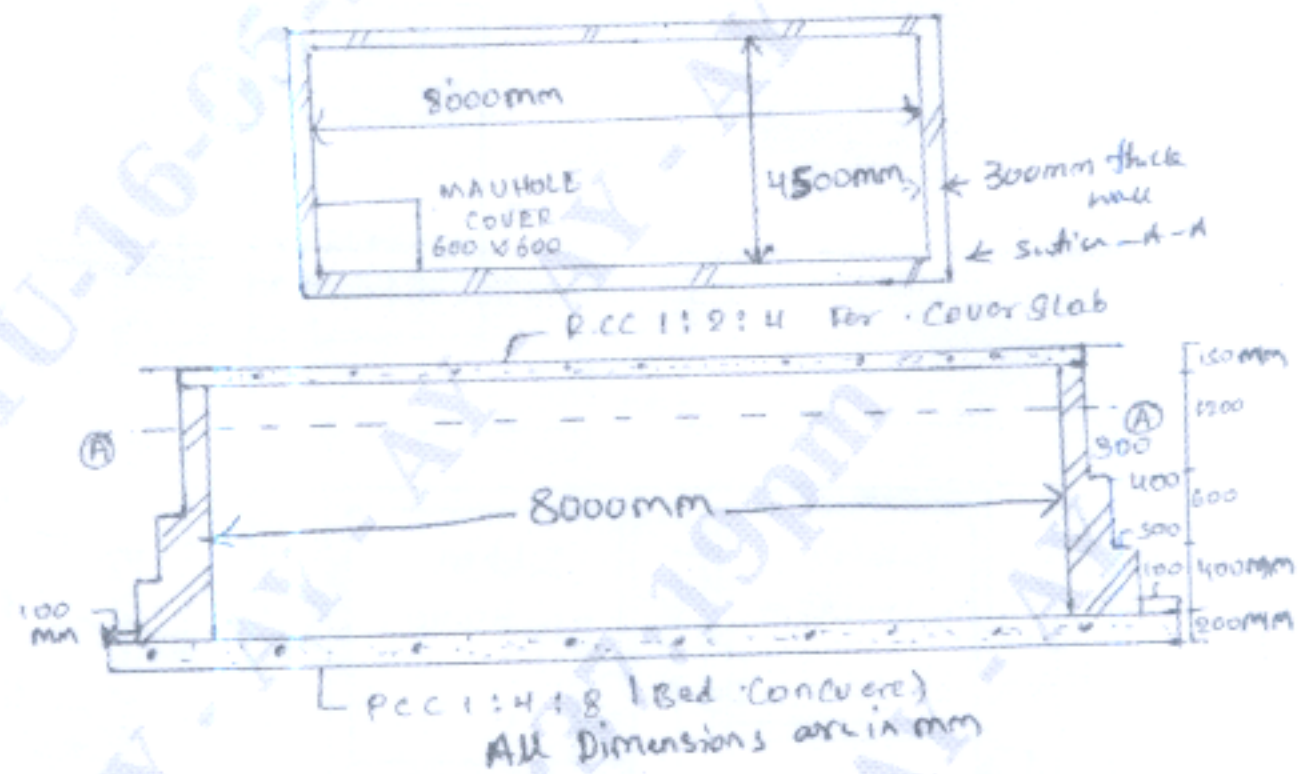


Fig. Q3

(20 Marks)

OR

- 4 Estimate the quantity at earth work in cutting for a road of 12 m formation width with the following data using mean sectional area method side slopes is 2 : 1 and no cross slope.

Chainage (M)	0	30	60	90	120	150
Ground level	70.50	69.30	71.40	74	75	73.50
Formation level	65.00	← Rising gradient 1 in 30 →				

(20 Marks)

**Module-3**

- 5 a. Mention the objectives of writing specifications. (05 Marks)  
 b. Write the detailed specification for any three of the following :  
 (i) First class brick work in super structure in CM 1 : 6  
 (ii) 18 mm thick plastering for outside wall in CM 1 : 4  
 (iii) RCC work for slab in CC 1 : 1.5 : 3. (15 Marks)

OR

6 Write the detailed specification for any four of the following :

- (i) Earth work excavation
- (ii) Size stone masonry with CM 1 : 6 for foundation.
- (iii) RCC work for beam, column in CC 1 : 1.5 : 3
- (iv) 12 mm thick plastering for inside wall.

(20 Marks)

Module-4

7 a. Mention the factors affecting rate at item of the work.

(05 Marks)

b. Work out from first principal the rate per unit for any three of the following :

- (i) Earth work excavation for foundation.
- (ii) First class brick work in super structure is C : M 1 : 6.
- (iii) R.C.C. roof slab C.M 1 : 1.5 : 3 with 1% steel.

(15 Marks)

OR

8 (i) Plastering work 12 mm thick internal wall.

(ii) RCC work lintel CM 1 : 2 : 4 with 0.9% steel.

(iii) Stone masonry work for foundation 1 : 6 C.M.

(iv) Plastering work 18 mm thick external wall.

(20 Marks)

Module-5

9 List the types of contract. Briefly explain any three types at contract.

(20 Marks)

OR

10 Explain the procedure at tendering and award of work in Civil Engineering projects.

(20 Marks)

\* \* \* \* \*