

# CBCS SCHEME



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18ENG74

## Seventh Semester B.Arch. Degree Examination, June/July 2025 Specification, Quantity and Costing of Buildings

Time: 3 hrs.

Max. Marks: 100

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

### Module-1

- 1 a. What is an estimate? Explain the need of estimation in a building project. (06 Marks)  
b. Explain briefly different types of estimate in building construction. (14 Marks)

OR

- 2 Write detailed technical specification for the following:  
a. Cement concrete 1:3:6 for foundation. (07 Marks)  
b. First class brickwork in superstructure with 1:6 CM (07 Marks)  
c. Distempering. (06 Marks)

### Module-2

- 3 a. Write a detailed explanation on BOQ. (10 Marks)  
b. What is contract? Explain briefly different types of contract. (10 Marks)

OR

- 4 a. Explain briefly the safety measures to be followed by construction workers at site. (10 Marks)  
b. What is measurement book? Explain the rules to be followed in recording measurement book. (10 Marks)

### Module-3

- 5 a. What is rate analysis? What are the factors affecting rate analysis? Explain briefly. (10 Marks)  
b. Prepare a detailed rate analysis for below mentioned item of work. (10 Marks)  
i) R.C.C work 1:2:4 for slabs. (10 Marks)

OR

- 6 Prepare a detailed rate analysis for the following items of work:  
a. Placing and laying of cement concrete 1:4:8 in foundation bed. (10 Marks)  
b. Cement pointing with 1:2 CM (10 Marks)

**Module-4**

- 7 The Fig.Q.7 shows the details of a 2 bedroom building. Prepare a detailed estimate for below mentioned work using centerline method.
- Centre line calculations. (06 Marks)
  - Earth work excavation for foundation in ordinary soil. (03 Marks)
  - First class brickwork in CM 1:6 for superstructure. (08 Marks)
  - DPC Plinth concrete 1:2:4. (03 Marks)

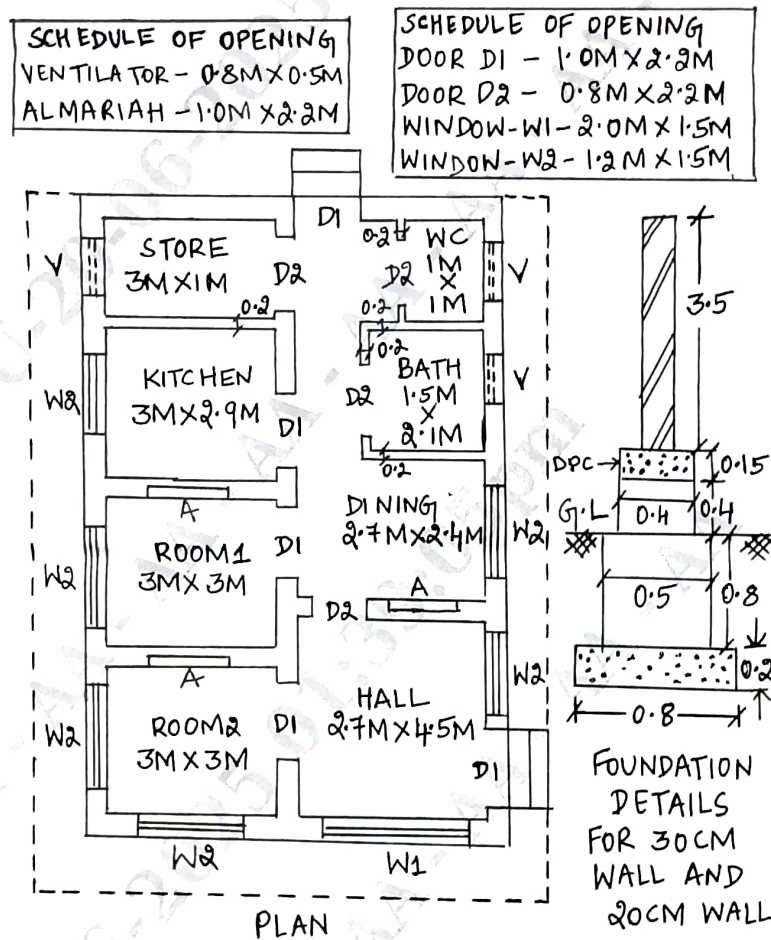


Fig.Q.7

In Fig.Q.7, gives the dimensions of two room residential building with following details:

- Foundation bed concrete width - 0.8 M, depth = 0.2 M
- Foundation SS masonry below G.L - width - 0.5 M depth - 0.8 M  
Above G.L → width 0.4 M, depth - 0.4 M
- DPC (1:2:4) → width 0.4 m, depth - 0.15 M
- External walls are of 30 cm thick and thin partition walls are 20 cm thick.
- All round lintel 1:2:4 has a depth of 0.15 M.

OR

- 8 For the figure shown in Fig.Q.7, calculate the below mentioned items of work:
- Internal plastering of walls (07 Marks)
  - Ceiling plastering (07 Marks)
  - Teak wood for panelled doors and partly panelled and partly glazed windows and ventilators. (06 Marks)

**Module-5**

- 9 Prepare a detailed estimate for a septic tank shown in Fig.Q.9 for the following items of work:
- Earthwork in excavation (04 Marks)
  - P.C.C for foundation (04 Marks)
  - First class brick work (07 Marks)
  - Plastering with CM 1:4 for walls (inner surface) (05 Marks)

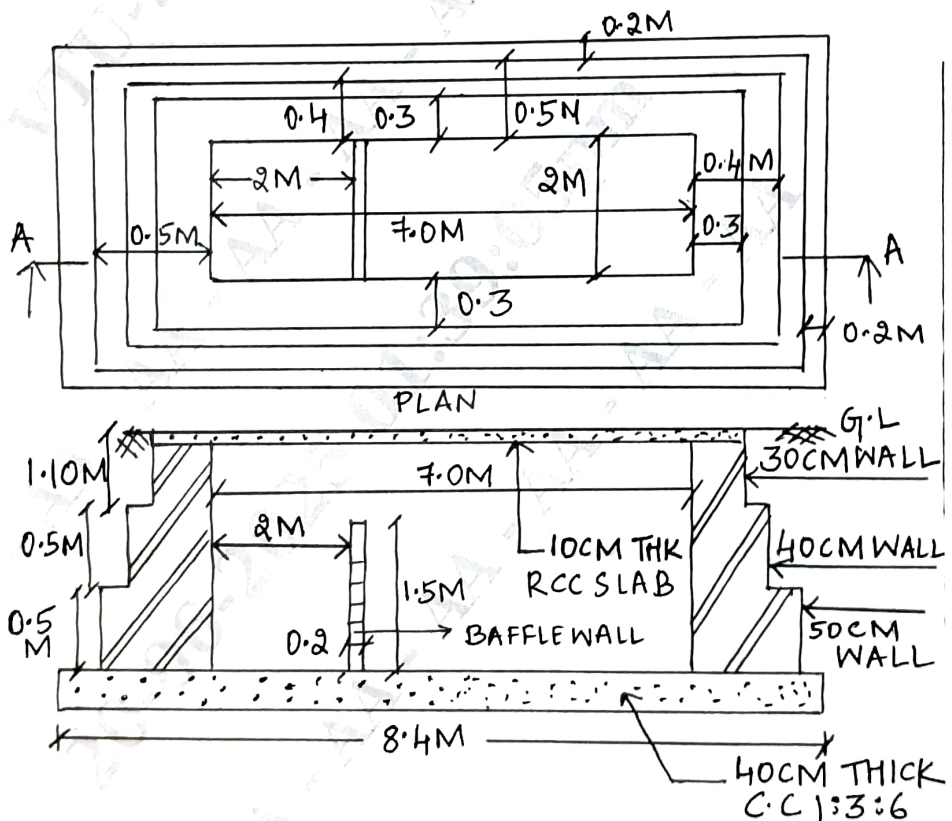


Fig.Q.9 : Section A - A

OR

- 10 a. Prepare a detailed estimate for RCC column and footing for Fig.Q.10(a).  
Take 8 mm – 0.4 kg/m, 10 mm – 0.6 kg/m, 12 mm = 0.9 kg/m, 16 mm – 1.6 kg/m

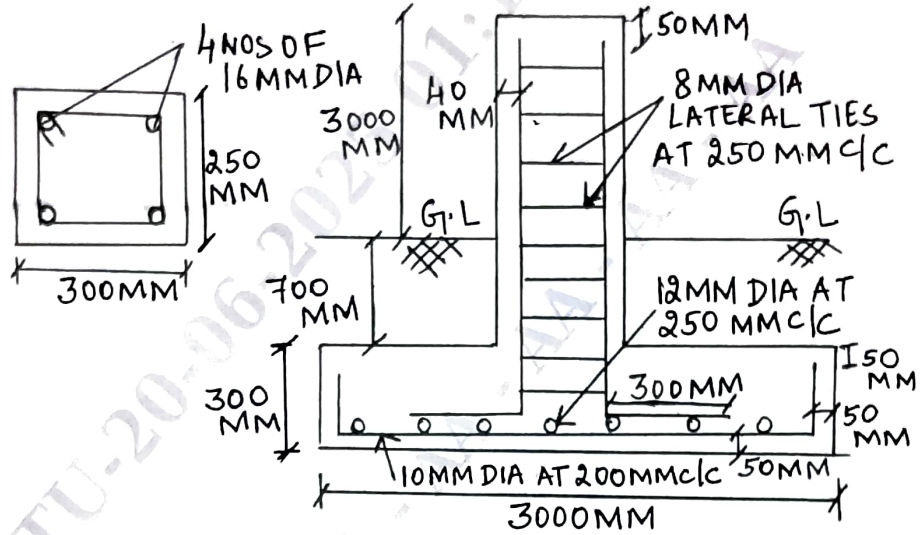


Fig.Q.10(a)

Footing Size – 3 m × 2.5 m

Reinforcement – 12 mm dia bars at 250 mm c/c along shorter direction and 10 mm diameter bars at 200 mm c/c along longer direction. (14 Marks)

- b. Discuss the role of an architect in monitoring specification RA bills, quality control at site. (06 Marks)

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