

# CBCS SCHEME

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18ENG74

## Seventh Semester B.Arch. Degree Examination, Dec.2024/Jan.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 do you mean by General specification and detailed specification? (08 Marks)
- b. What are the importance of Indian standard specifications? Discuss the objects of specifications. (12 Marks)

OR

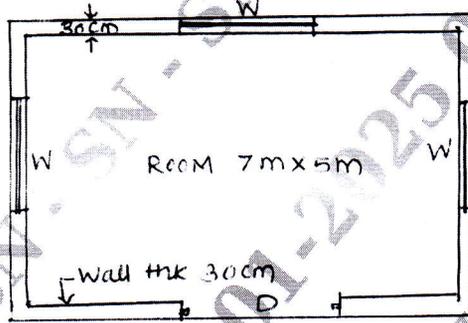
- 2 a. Write detailed technical specifications for providing and constructing burnt brick masonry and CM 1 : 6 for superstructure using table moulded bricks. (08 Marks)
- b. Explain the following : i) Detailed Estimate      ii) Supplementary Estimate  
iii) Revised Estimate. (12 Marks)

### Module-2

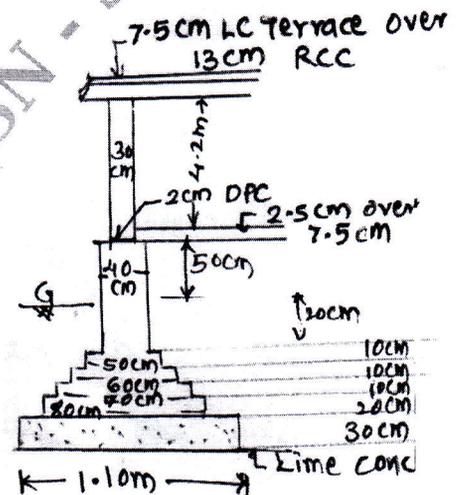
- 3 a. Explain Bill of Quantities (BOQ). Give a typical sheet showing how BOQ is furnished. (08 Marks)
- b. Explain the following terms : i) Day work      ii) Prime cost      iii) Provisional sum. (12 Marks)

OR

- 4 Estimate the quantities of the following items of a single room building from Fig. Q4.



PLAN Fig. Q4



Cross section of Wall Fig. Q4

- a. Cement concrete in foundation.
  - b. Earthwork in excavation in foundation.
  - c. 2.5 cm DPC
  - d. SSM in CM 1 : 6 for foundation and plinth.
- Use long wall and short wall method. (20 Marks)

### Module-3

- 5 a. Explain i) Analysis of Rates      ii) Overhead costs. (08 Marks)
- b. Workout from the 1<sup>st</sup> principles rate analysis for RCC roof slab 1 : 2 : 4. (12 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

- 6 The basic cost of material is Rs 250/bag of cement, Fine aggregate is Rs 500/m<sup>3</sup>, 20mm aggregate CA – Rs 720/m<sup>3</sup>, Brick (table moulded) Rs 13/No. Prepare detailed rate analysis from 1<sup>st</sup> principles for :
- P/L PCC 1 : 2 : 4 for foundation plinth as DPC using 20mm down size coarse aggregate. (10 Marks)
  - P/L PCC 1 : 1, 5 : 3 for Roof slab using 20mm and down size coarse aggregate. (10 Marks)

**Module-4**

- 7 Fig. Q7 shows details of 2 room building. Prepare detailed estimate for
- Centre line calculations.
  - Earthwork excavation for foundation in hard soil.
  - I class Brick work in superstructure.
  - PCC in CM 1 : 4.

(20 Marks)

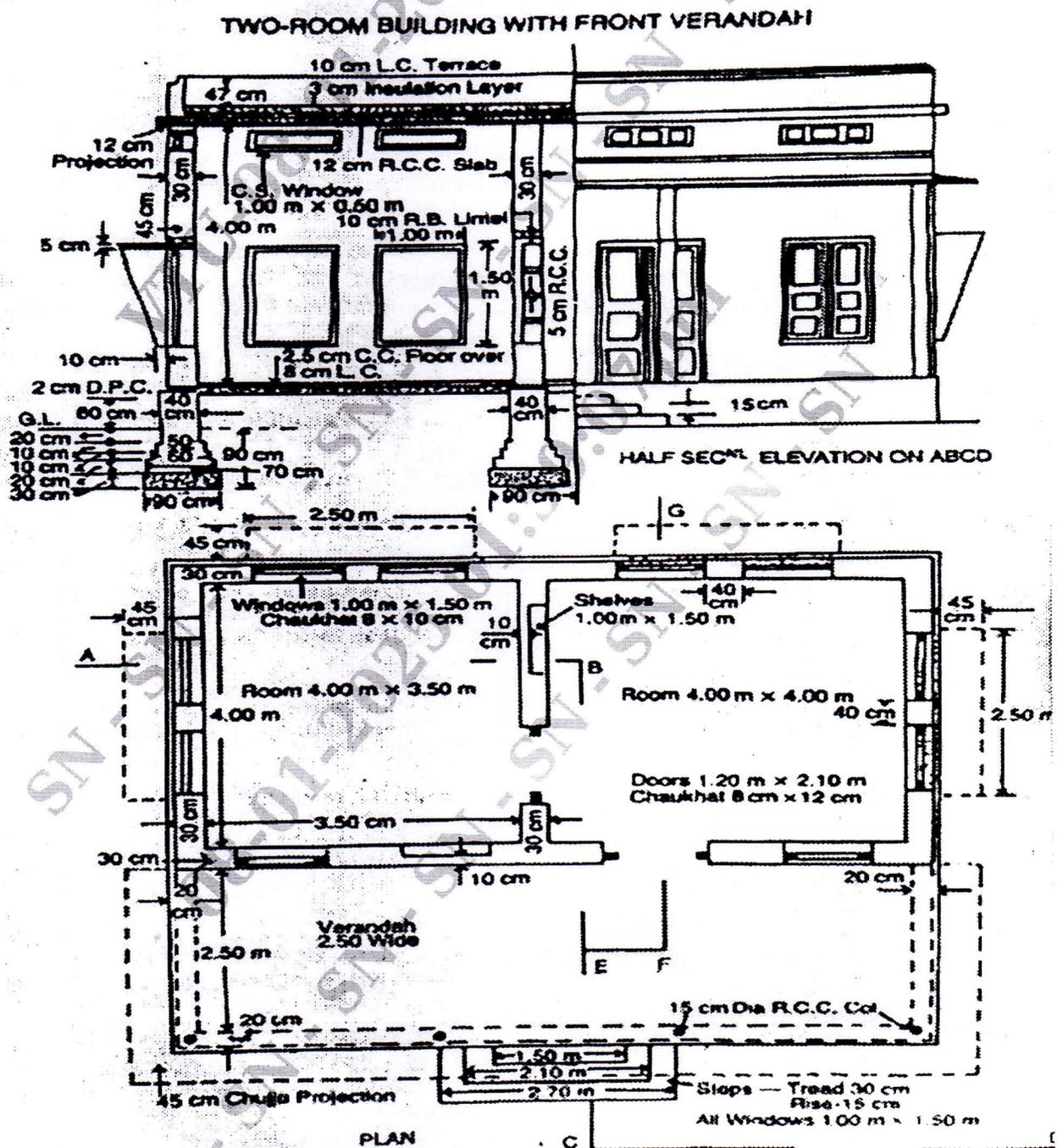


Fig. Q7

CROSS-SECTION OF TWO-ROOMED BUILDING

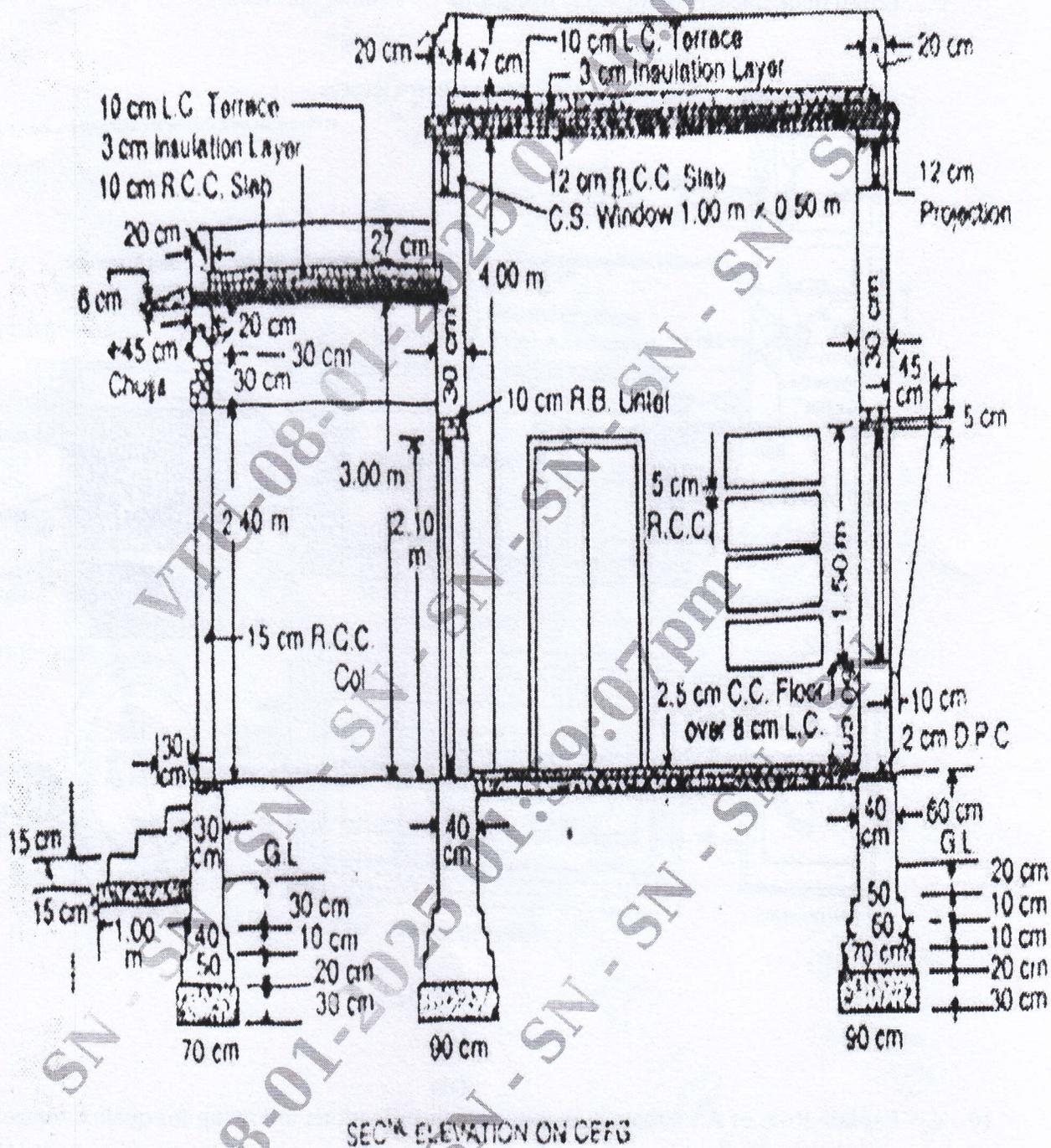


Fig. Q7

OR

- 8 a. Explain term "Project". What do you understand about complete estimate of a project? (10 Marks)
- b. Explain : i) Preliminary Estimate ii) Impact of delay in project on costing. (10 Marks)

### Module-5

- 9 Prepare a detailed estimate of a septic tank with soak – pit for 50 users together with sanitary fittings of one seat of latrine as shown in Fig. Q9 for the following items of works.
- Earth work in excavation.
  - First class brick work in septic tank.
  - 12mm thick plastering for walls using CM 1 : 6 (inner surface).
- (20 Marks)

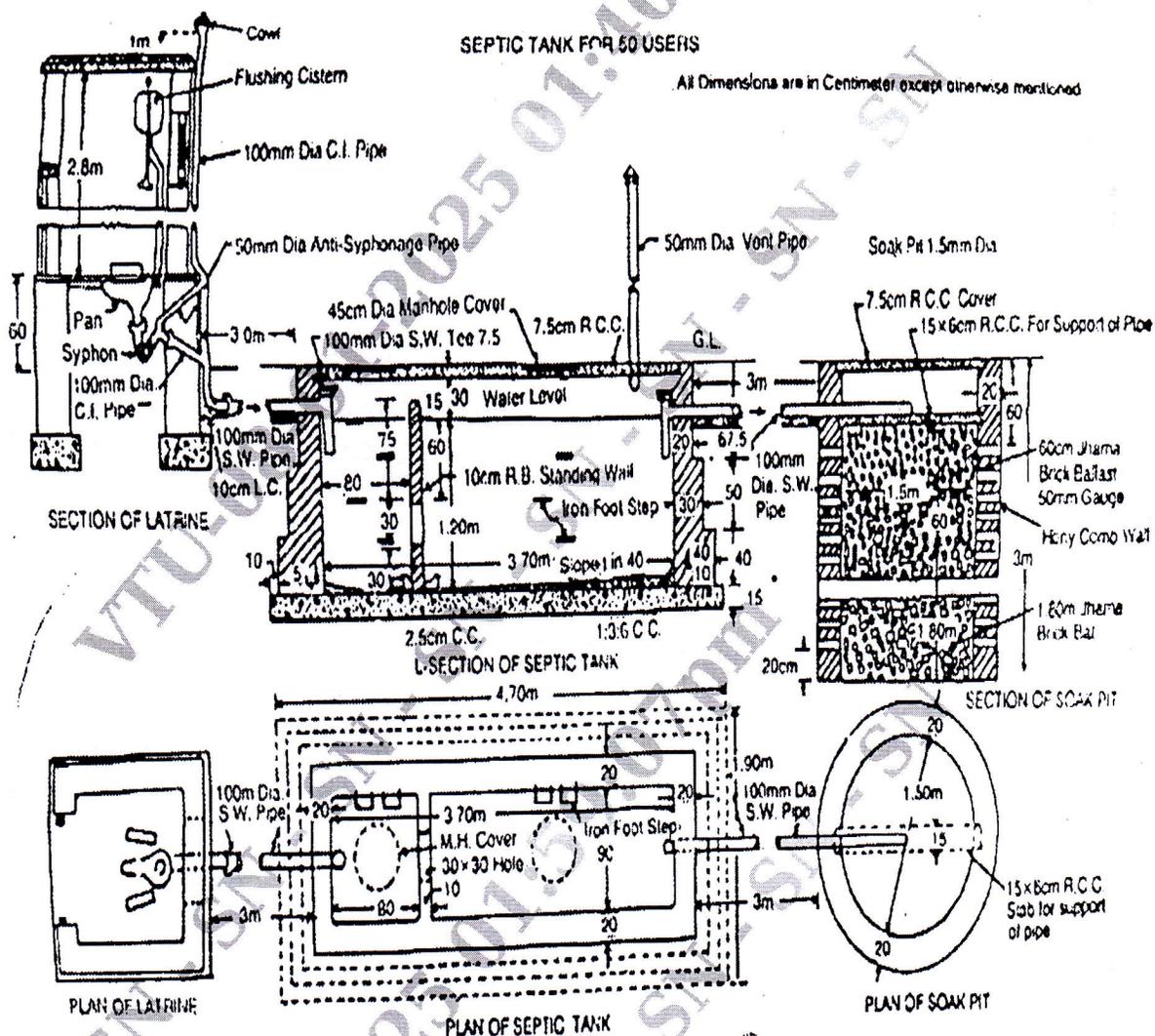


Fig. Q9

OR

- 10 a. Explain Role of Architects in monitoring specifications follow up for quality control. (10 Marks)
- b. Explain :
- Measurement Book (MB)
  - RA Bills
  - Interim and final checking
  - Certification of works on site based on the BOQ and terms of contract. (10 Marks)

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