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**Seventh Semester B.Arch. Degree Examination, Dec.2024/Jan.2025**  
**Estimation and Costing**

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. (08 Marks)  
 b. Explain factors affecting Estimate. (12 Marks)

**OR**

- 2 a. Write a detailed specification for Earth work excavation in foundation. (10 Marks)  
 b. Write a detailed specification for PCC. (10 Marks)

**Module-2**

- 3 a. What is BOQ? Explain its importance. (10 Marks)  
 b. What is a Contract? Explain about labour contract. Discuss its advantages and disadvantages. (10 Marks)

**OR**

- 4 Write a note on mandatory test and safety measures included in specification for construction. (20 Marks)

**Module-3**

- 5 a. What is schedule of Rates? Discuss in detail why rate varies. (10 Marks)  
 b. Prepare Rate analysis for PCC 1 : 4 : 8 using 40mm down Aggregate. (10 Marks)

**OR**

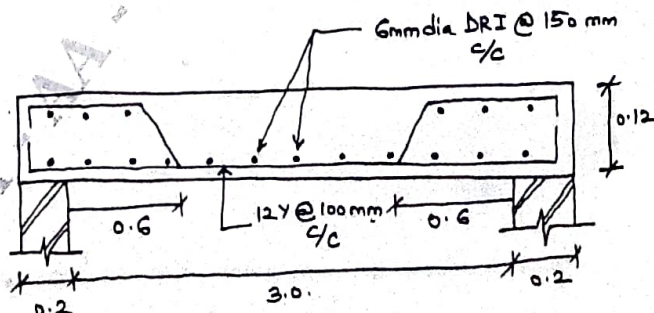
- 6 a. Explain what is meant by Rate Analysis. (05 Marks)  
 b. Prepare detailed Rate Analysis for RCC slab 12cm thick (1 : 2 : 4) with steel reinforcement. (15 Marks)

**Module-4**

- 7 Prepare a detailed estimate with abstract sheet for RCC slab with following details : (20 Marks)  
 Refer Fig. Q7.

- i) Room size : 3.0 × 4.0m (clear)      ii) Clear cover (top & bottom) : 20mm  
 iii) Side cover : 50mm      iv) Alternate bars are cranked  
 v) Assume Market rates      vi) 12Y @ 0.89kg/m and 6Y @ 0.22 kg/m.

Fig. Q7



**OR**

- 8 Prepare a detailed estimate of an RCC footing and column. (Refer Fig. Q8).
- Earth work excavation and filling
  - PCC (1 : 4 : 8)
  - CC (1 : 1.5 : 2).
  - Shuttering for columns
  - Providing and Bar bending steel reinforcement.

**(20 Marks)**

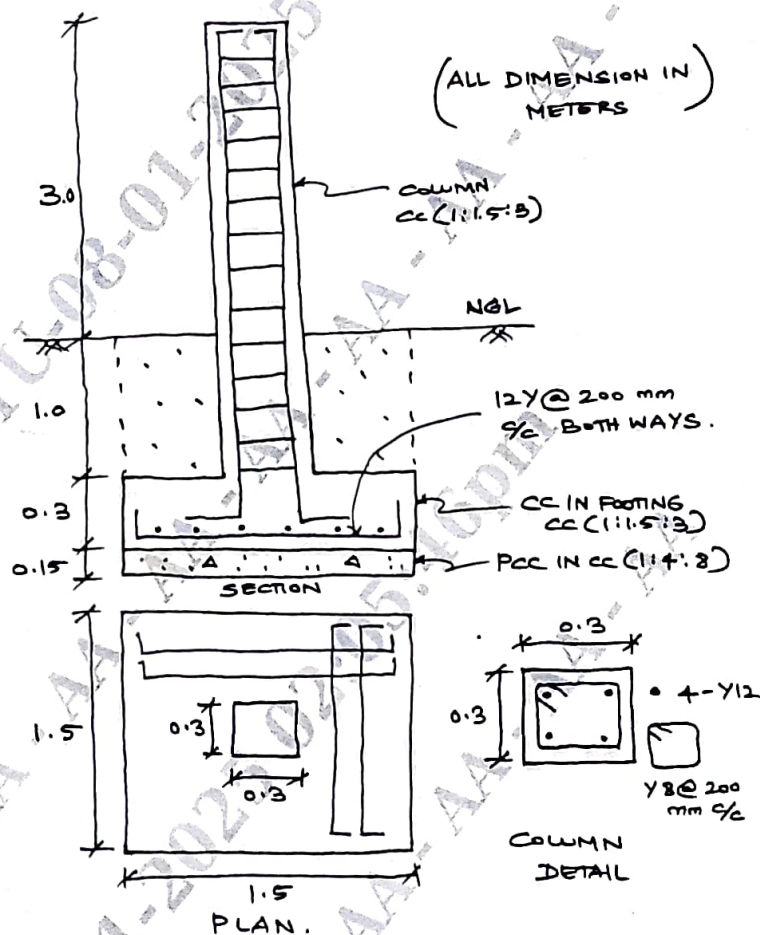


Fig. Q8.

Note : Clear and side cover for footing : 50 mm.

Cover for column : 40 mm.

12Y @ 0.89 kg/m , 8Y @ 0.45 kg/m.

## Module-5

- 9 Prepare a detailed estimate of a Septic tank. Shown in Fig. Q9.
- Earth work excavation
  - First class brick work.
  - 12mm thick plastering (Inner face).
  - CC (1 : 3 : 6) Flooring.

**(20 Marks)**

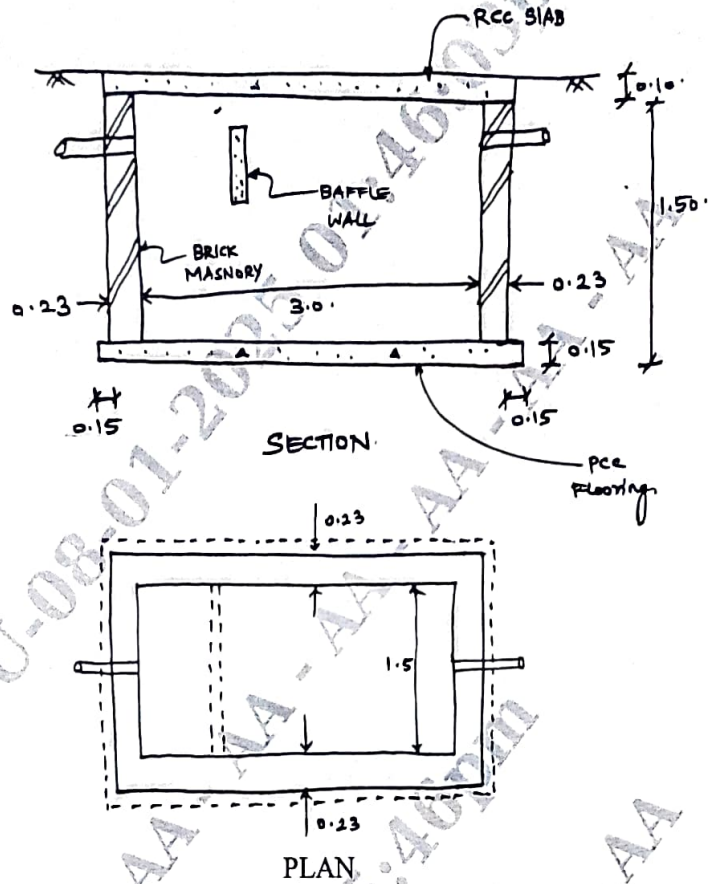


Fig. Q9 (All dimensions in meters unless specified)

OR

- 10 a. Explain the role of Architects in monitoring specification for quality control. (10 Marks)
- b. Write a short note on :
- i) Measurement Book (10 Marks)
- ii) R A Bills. (10 Marks)

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