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Fourth Semester B.Arch. Degree Examination, June/July 2026

Materials and Methods in Building Construction - IV

Time: 4 hrs.

Max. Marks: 100

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

Module-1

- 1 Draw Plan, Section and Reinforcement. Detail of flat slab with column head to a span of 20 m × 15 m slab. (20 Marks)

OR

- 2 Write the difference between convention type of slab and flat slab. With reinforcement details wherever necessary. (20 Marks)

Module-2

- 3 Define a Waffle slab. List its advantages with the brief explanation of how it is designed , adding appropriate sketches. (20 Marks)

OR

- 4 What is meant by R.C.C filler slabs? Discuss about their principles and methods of construction. (20 Marks)

Module-3

- 5 Explain roof covering for workshop of 30 m × 15 m with steel column and beam with roof covering. Draw plan and section to suitable scale. (20 Marks)

OR

- 6 Explain steel as building materials, its advantages, properties and application. (20 Marks)

Module-4

- 7 Draw plan, elevation and section with two details of steel door of size 1.0 m × 2.1 m. (20 Marks)

OR

- 8 Draw plan, elevation, section and any two details of rolling shutter for a span of 3 m × 2.5 m. (20 Marks)

Module-5

- 9 Draw a plan , elevation and 2 details for a aluminum casement window measuring 1600mm (w) × 1000mm (H). (20 Marks)

OR

- 10 a. Discuss about the various applications of aluminum with respect to the building Industry. (05 Marks)
- b. Draw the following details of a two – track sliding window, referring to the given elevation in Fig. Q10(b). Choose appropriate scales.
- i) AA' ii) BB' iii) Extension details. (15 Marks)

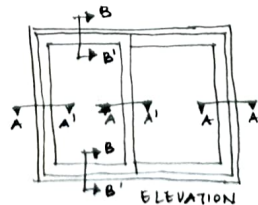


Fig. Q10(b)

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.