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18ARC42

Fourth Semester B.Arch. Degree Examination, Dec.2023/Jan.2024 Materials and Methods of 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 a. Explain the method of construction of filler slab using Terracotta pots as fillers. (10 Marks)
b. Write the criteria for filler material selection. (05 Marks)
c. Advantages of filler slab. (05 Marks)

OR

- 4 Draw plan, section and reinforcement. Details of Waffle slab for a span of 10 m × 15 m. (20 Marks)

Module-3

- 5 Write different types of steel and mention its benefits and limitations. (20 Marks)

OR

- 6 Draw a plan to suitable scale of a workshop with span of 20 m × 12 m. Draw following details.
(i) Plan showing column and beam details. (06 Marks)
(ii) Draw beam to column connection details. (07 Marks)
(iii) Draw column to footing connection details. (07 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 Explain types, properties, uses and manufacturing process of aluminium as a building material. (20 Marks)

OR

- 10 Draw plan, section, elevation and any two details of aluminium door. (20 Marks)
