CBCS SCHEME

USN | | | | | | | | | | |

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)**

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