USN ☐☐☐☐☐☐☐☐☐☐

15ARC4.2

Fourth Semester B.Arch. Degree Examination, June/July 2019
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 a flat slab of span 6 × 5m showing all the reinforcement details.   **(20 Marks)**

OR

2   Draw a moment frame structure of 5m × 4m useable area, showing all the reinforcement details.
                                                                                              (20 Marks)

Module-2

3   Explain the principles and methods of construction of a filler slab with examples.   **(20 Marks)**

OR

4   Draw to a suitable scale, a waffle slab showing all the reinforcement details and formwork
     details.   **(20 Marks)**

Module-3

5   Explain steel as a building material.   **(20 Marks)**

OR

6   Draw the types of column and beam connections in a steel structure.   **(20 Marks)**

Module-4

7   Draw details of a collapsible shutter of an opening of size 2.4m × 2.4m keeping effective height
     of door 2.1m.   **(20 Marks)**

OR

8   Draw to a suitable scale, plan, elevation, section and details of a steel window of size
     1.2 × 1.5m.   **(20 Marks)**

Module-5

9   Explain aluminium as a building material.   **(20 Marks)**

OR

10   Draw to a suitable scale, plan, elevation and details of a casement Al.Window of size
     1.2 × 1.3m.   **(20 Marks)**

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