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# 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  $6 \times 5$ m 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  $1.2 \times 1.5$  m. (20 Marks)

# Module-5

9 Explain aluminium as a building material.

(20 Marks)

### OR

Draw to a suitable scale, plan, elevation and details of a casement Al.Window of size  $1.2 \times 1.3$  m. (20 Marks)

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