

# CBCS SCHEME

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15ARC4.2

## Fourth Semester B. Arch Degree Examination, Dec.2018/Jan.2019 Materials Methods in Building Construction

Time: 4 hrs.

Max. Marks: 100

**Note:** Answer FIVE full questions, choosing one full question from each module.

### Module-1

- 1 Discuss in details different types of flat slab and explain the design principles of it, along with its advantages and application. (20 Marks)

OR

- 2 Draw to the suitable scale, portal frame of span 20mts, show keyplan section and detail. (20 Marks)

### Module-2

- 3 Design a filler slab assuming suitable span for using room, consider any suitable filler material. Draw. i) Plan ii) Section iii) Detail. Assume suitable scale. (20 Marks)

OR

- 4 Propose a waffle slab for a lotton spanning  $9m^2$ . Draw plan section and Reinforcement details assuming suitable scale. (20 Marks)

### Module-3

- 5 Give the definition of structural steel types, properties, uses and manufacturing methods. (20 Marks)

OR

- 6 Propose a steel column beam structure at suitable area, spanning 10mts, draw plan section and 1 joint connection, assuming suitable scale. (20 Marks)

### Module-4

- 7 Draw to the suitable scale steel door for garage of size  $4 \times 3$  mts, draw plan elevation and section, assume suitable scale. (20 Marks)

OR

- 8 Propose a rolling shutter of span  $3 \times 3$  mts to an entrance of Girls hostel, assume suitable scale and draw plan, elevation and section. (20 Marks)

### Module-5

- 9 Discuss Aluminum properties and uses give a sketch of aluminium partition suitable area for span of 4mts. Sketch plan, elevation and detail. (20 Marks)

OR

- 10 Propose a sliding aluminium door for dining room size  $2.5 \times 2.1$  mts, Draw plan, elevation and section of detail to a suitable scale. (20 Marks)

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