

# CBCS SCHEME

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15ARC2.2

## Second Semester B.Arch. Degree Examination, Dec.2018/Jan.2019 Materials and Methods in Construction – II

Time: 4 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. Compare wooden and steel truss roof. (08 Marks)  
b. Sketch fixing of G.I. sheet to steel, and wooden truss roof to Mangalore tiles. (12 Marks)

OR

- 2 A resort entrance lobby is in need of wooden truss of king post size 9m × 15m. Draw:  
Key plan – scales 1:100 (04 Marks)  
Part plan – scale 1:25 (06 Marks)  
Elevation of truss scale 1: 25 (06 Marks)  
One joint detail scale 1:10. (04 Marks)

### Module-2

- 3 What is cement? Explain its various types with application. (20 Marks)

OR

- 4 a. What is concrete? Explain properties and uses. (12 Marks)  
b. What is mix and proportioning in concrete? Explain. (08 Marks)

### Module-3

- 5 a. What is admixture? Explain its types, uses and disadvantages. (10 Marks)  
b. Explain with sketches isolated footing. (10 Marks)

OR

- 6 a. Explain with sketches combined RCC Footings. (10 Marks)  
b. Explain with sketches Raft foundation. (10 Marks)

### Module-4

- 7 Sketch elevation of staircase. Show all parts of it and explain all technical terms related to staircase. (20 Marks)

OR

- 8 Draw plan and section of folded plate R.C.C. staircase to suitable scale, width of staircase is 1m and height of Rm 3m slab thickness – 15cm (show reinforcement details). (20 Marks)

### Module-5

- 9 Draw a plan and elevation of steel spiral staircase of 1m wide for a residential building. (Assume the scale). (20 Marks)

OR

- 10 Design a composite stairs for a lobby of institutional building. Draw plan and elevation and any one detail to the suitable scale. (20 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.