

CBCS SCHEME

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15ARC72

Seventh Semester B.Arch. Degree Examination, Jan./Feb. 2021 Materials and Methods in Building Construction - VII

Time: 4 hrs.

Max. Marks:100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. Assume Scale & Details / Dimensions wherever necessary.

MODULE - 1

- 1 Explain the properties and uses of the following materials :
 - a. Plywood. (05 Marks)
 - b. Particle board. (05 Marks)
 - c. Hard board. (05 Marks)
 - d. MDF. (05 Marks)

OR

- 2 Design and draw construction details for a wardrobe 1.2m wide × 2.1m high and 600mm deep with the following drawings :
 - a. Plan , elevation and section to a suitable scale. (15 Marks)
 - b. Anyone fixing detail of shutter. (05 Marks)

MODULE - 2

- 3 Design and draw plan, elevation and cross – sectional details of a cabinet shelf of size 1.8m wide × 1.2m high. (20 Marks)

OR

- 4 Draw partition for a room of size 6m × 10m with door of size 1.5m × 2.1m. Draw plan, partition frame sectional elevation and any one junction details of the designed partition. Assume suitable scale. (20 Marks)

MODULE - 3

- 5 a. Design and draw construction details of false ceiling using aluminum members for a room of size 5m × 6m. Provide the following details :
 - i) Reflected ceiling plan
 - ii) Cross section to scale. (15 Marks)
- b. Explain materials used for acoustic ceiling. (05 Marks)

OR

- 6 a. Explain different methods of post – tensioning of concrete structural members with neat sketches and application of the same. (10 Marks)
- b. Sketch construction details of pre – stressed beam to slab connection. (10 Marks)

MODULE - 4

- 7 a. Enumerate the difference between precast piles and cast – in – situ piles foundation with the help of neat sketch. (10 Marks)
- b. What are Mat foundation? Explain in detail its applications. (10 Marks)

OR

- 8 a. Explain with the help of neat sketches, construction details of earthen walls. (10 Marks)
b. Enumerate different types of pile foundation. (10 Marks)

MODULE - 5

- 9 Draw construction details for a room of size 5m × 4m using bamboo for complete super structure work. Provide the following drawings :
- a. Plan. (07 Marks)
b. Elevation. (06 Marks)
c. Section. (07 Marks)

OR

- 10 a. What is Prefabrication? Explain advantages and relevance of the same in the Indian context. (10 Marks)
b. Sketch the fixing details of prefabricated elements :
i) Column to column ii) Column to slab. (10 Marks)
