

CBCS SCHEME



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

Time: 4 hrs.

Max. Marks: 100

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

Module-1

- 1 a. What is modular construction? Explain Briefly the process involved in constructing modular buildings. (10 Marks)
- b. What are Caissons? Explain any one Caisson type used in underwater construction with neat sketches. (10 Marks)

OR

- 2 a. Discuss the impact of construction industry on the environment. What are the steps to be taken to address the issues? (10 Marks)
- b. Explain cut and cover method used for underground construction with neat sketches. (10 Marks)

Module-2

- 3 Explain in detail the impact of big data at different phases of a construction project. (20 Marks)

OR

- 4 a. Explain the different functions of BIM. Discuss its benefits. (10 Marks)
- b. Explain any two automated advance construction equipments. (10 Marks)

Module-3

- 5 What is retrofitting? Explain with neat sketches the retrofitting strategies with 2 examples each. (20 Marks)

OR

- 6 a. Explain the techniques of seismic retrofitting techniques with neat sketches. (10 Marks)
- b. Explain any four types of repairs of building components with neat sketches. (10 Marks)

Module-4

- 7 Explain with a case study, the active and passive design strategies in achieving green building. (20 Marks)

OR

- 8 Discuss green building strategies for any 4 building components : i) Walls ii) Floor slab iii) Roofs iv) Doors and windows v) Landscape and pavements. (20 Marks)

Module-5

- 9 What are smart materials? Discuss in detail any four smart materials used for structure, enclosure system, partition system and finisher. (20 Marks)

OR

- 10 What are nano materials? Explain any four. (20 Marks)
