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Eighth Semester B.Arch. Degree Examination, June / July 2026 Materials & 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 List the types of formwork used in the construction of high-rise structures. Explain with neat sketches any three methods. (20 Marks)

OR

- 2 Explain in detail with neat sketches any three types of underground construction methods. Discuss their advantages and disadvantages. (20 Marks)

Module-2

- 3 List the various types of equipments used in the construction industry. Provide one example for each type and explain its functions. (20 Marks)

OR

- 4 a. Explain how 3D printing of a structure is done. (10 Marks)
b. What is the influence of Big Data in the construction industry? (10 Marks)

Module-3

- 5 What is Retrofitting? Explain various methods of retrofitting. (20 Marks)

OR

- 6 What is the purpose of Life Cycle Assessment (LCA) of building materials? What are the aspects included in Life Cycle Assessment? (20 Marks)

Module-4

- 7 What is Net Zero Energy Building? What strategies to adopt for design of Net Zero Building? (20 Marks)

OR

- 8 Discuss the concepts of Green Buildings. What are the various rating systems for assessment of Green Building? (20 Marks)

Module-5

- 9 What is Nano Technology? Explain with examples any four materials in the building industry that are impacted by nano technology. (20 Marks)

OR

- 10 Where do smart materials find application in the building industry? Name five smart materials and its application. (20 Marks)

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.