USN | | | | | | | | | | **18ARC82**

Eighth Semester B.Arch. Degree Examination, June/July 2023
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. Explain prefabrication, its advantages and disadvantages.   (10 Marks)
   b. Elaborate on comparative analysis between aluminium form work and conventional timber form work.   (10 Marks)

OR

2 Write short notes on box Caisson's and Coffer dam.   (20 Marks)

Module-2

3 a. What is Data Silo and Cloud collaboration?   (10 Marks)
   b. What do you understand by the term simulation? Explain its benefits.   (10 Marks)

OR

4 a. What is 3D printing and explain its advantages.   (10 Marks)
   b. What is BIM? Elaborate on the use of BIM in construction management.   (10 Marks)

Module-3

5 a. Explain Life Cycle Analysis.   (05 Marks)
   b. Describe the four stages that are assessed in a life cycle assessment.   (15 Marks)

OR

6 a. Differentiate between repairs and retrofits.   (10 Marks)
   b. Explain two techniques for each on repairs and retrofits.   (10 Marks)

Module-4

7 What do you understand by GRIHA? Explain any three major components that result in points for GRIHA rating.   (20 Marks)

OR

8 Explain methods of Harvesting and Conserving energy to achieve a Net Zero Energy Building.   (20 Marks)

Module-5

9 Explain in detail any four smart materials and its application in the construction industry.   (20 Marks)

OR

10 Explain in detail any four Nano material and its application in the construction industry.   (20 Marks)

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