

CBCS SCHEME

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15CV653

Sixth Semester B.E. Degree Examination, June/July 2018 Alternative Building Materials

Time: 3 hrs.

Max. Marks: 80

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

Module-1

- 1 a. Explain the concept of energy embodied in building materials. (08 Marks)
- b. Explain the role of construction industry in global warming. (08 Marks)

OR

- 2 a. List out the various environmental friendly and cost effective building technologies. Explain any one in brief. (08 Marks)
- b. What are the advantages of LEED? List out the five main credit categories in LEED rating system. (08 Marks)

Module-2

- 3 a. Write a note on : (i) Fal-G blocks (ii) Laterite blocks. (08 Marks)
- b. List and explain the properties of Good mortar. (08 Marks)

OR

- 4 a. Explain the method of manufacturing stabilized mud blocks. (08 Marks)
- b. A brick masonry prism is made up of 6 bricks joined by mortar of thickness 2 cms. The brick is 8 cm is thickness. The prism is subjected to a uniform vertical stress of 5 MPa. The brick has a modulus of 800 MPa and the mortar has a modulus of 9000 MPa. Determine the horizontal lateral stress in brick and mortar. Assume the Poisson's ratio of brick and mortar = 0.1 (08 Marks)

Module-3

- 5 a. Write the properties and uses of lime Pozzolana cement. (08 Marks)
- b. List out the different methods employed in manufacturing of FRP and explain any one in brief. (08 Marks)

OR

- 6 a. List out the different agro and industrial wastes. Explain their use as a building material. (08 Marks)
- b. Explain the applications of FRP composites. (08 Marks)

Module-4

- 7 a. List out the advantages and disadvantages of Mivan Construction Techniques. (08 Marks)
- b. Explain the process of constructing masonry domes and vaults. (08 Marks)

OR

- 8 a. What are the materials used in ferro cement? Explain its construction methods in brief. (08 Marks)
- b. What are the primary functions of a roof? Explain briefly the various roofing alternatives. (08 Marks)

1 of 2

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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.

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Module-5

- 9 a. What are the advantages and disadvantages of manufacturing concrete from RMC plants? (08 Marks)
b. What is the meaning of precast elements? What are the advantages of precast concrete? (08 Marks)

OR

- 10 a. Write a note on :
(i) Types of concrete mixer (08 Marks)
(ii) Cost concept in building.
b. What are the equipments used for producing stabilized blocks? Explain them in brief. (08 Marks)

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