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18CV643

Sixth Semester B.E. Degree Examination, June/July 2024
Alternate Building Materials

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. Explain the environmental issues related to building materials. (10 Marks)
 b. With neat sketch, explain rain water harvesting enlisting its various advantages. (10 Marks)

OR

- 2 a. Write a note on Green building ratings. (06 Marks)
 b. Discuss buildings in different climatic regions. (06 Marks)
 c. Write short notes on:
 i) Roof Pond System
 ii) Direct gain passive solar system. (08 Marks)

Module-2

- 3 a. Explain the method of manufacturing the stabilized mud blocks. (10 Marks)
 b. Explain briefly the use of stones and laterite blocks as masonry units. (10 Marks)

OR

- 4 a. List out the factors influencing compressive strength of masonry. Explain any two. (10 Marks)
 b. Write short notes on:
 i) FAL-G blocks
 ii) Characteristics of a good brick. (10 Marks)

Module-3

- 5 a. What is lime-pozzolana cement? Explain the different ways of blending lime and pozzolana. (10 Marks)
 b. List out matrix materials and reinforcing materials in fiber reinforced cement composites and explain their behavior of FRC in compression. (10 Marks)

OR

- 6 a. Explain typical agro wastes and other biomass resources in construction. (10 Marks)
 b. Discuss the following:
 i) Application of FRC in construction.
 ii) Production of Rice husk ash in rice husk burner. (10 Marks)

Module-4

- 7 a. Explain various types of filler slabs along with materials. (10 Marks)
 b. Explain masonry vaults and domes. (10 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.

OR

- 8 a. Explain the materials used in production of ferro cement products. (10 Marks)
b. Discuss the following in brief:
i) Cavity wall
ii) Rammed Earth. (10 Marks)

Module-5

- 9 a. Explain the methods involved in production of precast elements. (10 Marks)
b. Discuss in brief cost saving techniques in construction. (10 Marks)

OR

- 10 a. Write a note on global warming and construction industries. (10 Marks)
b. Explain the machine used in making of stabilized mud block. (10 Marks)
