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15CT753

Seventh Semester B.E. Degree Examination, Jan./Feb. 2021
Alternate Building Materials and Technologies

Time: 3 hrs. Max. Marks: 80

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

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.

VTU-19-02-2021 12:58:20pm AY - AY - AY - AY - AY - AY
19-02-2021 01:33:12pm AY - AY - AY - AY - AY - AY

Module-1

1 a. Explain the environmental issues concerned to building materials. **(08 Marks)**
b. Write a short note on Traditional building methods and vernacular architecture. **(08 Marks)**

OR

2 a. Write the characteristics of building block and explain the different types of blocks. **(10 Marks)**
b. What is stabilized Mud block and explain the manufacturing process of Stabilized Mud blocks. **(06 Marks)**

Module-2

3 a. What are the raw materials used in lime based mortars and explain them. **(08 Marks)**
b. Explain the Mechanical properties of fibre reinforced concrete. **(08 Marks)**

OR

4 a. Explain the uses of agricultural and industrial wastes in building materials. **(10 Marks)**
b. Explain the field quality control test methods. **(06 Marks)**

Module-3

5 a. Explain the construction techniques in the wall construction. **(08 Marks)**
b. Explain the properties of Masonry mortars. **(08 Marks)**

OR

6 a. Explain the construction methods of ferrocement. **(08 Marks)**
b. Explain the properties and applications of ferrocement. **(08 Marks)**

Module-4

7 a. Explain the construction procedure of a cool roof system. **(08 Marks)**
b. Explain the material specifications and uses of filler slabs. **(08 Marks)**

OR

8 a. Explain with a neat sketch composite beam and panel roof. **(08 Marks)**
b. Explain the construction of Masonry Vaults. **(08 Marks)**

Module-5

9 a. Define cost. Explain the different types of costs. **(08 Marks)**
b. Explain the cost saving techniques in planning. **(08 Marks)**

OR

10 a. Explain the cost analyzer using alternatives by giving an example. **(08 Marks)**
b. Explain the cost saving techniques used in design and construction. **(08 Marks)**

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