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B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

February / March 2024 Semester End Main Examinations

Programme: B.E.

Semester: I / II

Branch: Common to all Branches

Duration: 3 hrs.

Course Code: 22CV1ESGBT / 22CV2ESGBT

Max Marks: 100

Course: Green Buildings

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

MODULE - I

1 a) In terms of achieving sustainability and affordability, how are stabilized mud blocks superior when compared with burnt clay bricks Illustrate with suitable example. 10

b) In what way does quarrying of natural resources affect the environment. Can you suggest suitable remedial measures (any 4) to overcome/reduce this impact of quarrying on environment 10

OR

2 a) Describe the technical characteristics of Bamboo. Can bamboo be used as an active building material for different components in buildings? If so, specify its applications with suitable illustrations/examples. 10

b) What are the technical benefits of using construction and demolition waste as a building material? State the application of brick waste in construction. 10

MODULE - II

3 a) How is rat-trap bond different from Flemish bond. What are its benefits and limitations. 10

b) Describe the technical features of ferrocement construction. In what way can ferrocement be efficiently utilized in construction. Give some illustrations 10

OR

4 a) How is Pre- engineered construction different from conventional construction? What way can it lead to savings in material and time. Support your answer with suitable examples. 10

b) Highlight the construction, benefits and limitation of filler slab system of construction 10

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

MODULE - III

5	a) Green buildings are better in terms of sustainable practice. Validate the statement with appropriate justification	10
	b) How is the current trend of construction of buildings and infrastructure contributing to Global Warming? Elucidate.	10

MODULE - IV

6	a) Elucidate in details the “ GRIHA” rating system for green buildings	10
	b) What does “Integrated Life cycle design of Materials and structure” comprise of? Elaborate with explanation on related concepts	10

MODULE - V

7	a) Elaborate on the concept of Water utilization in buildings along with management approaches	10
	b) Elaborate on different solar passive cooling techniques which can help in energy savings in building	10
