

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

Autonomous Institute Affiliated to VTU

October 2024 Supplementary Examinations

Programme: B.E.

Branch: Common to all Branches

Course Code: 22CV1ESGBT / 22CV2ESGBT

Course: Green Buildings

Semester: I / II

Duration: 3 hrs.

Max Marks: 100

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

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.			UNIT - I	CO	PO	Marks
	1	a)	“Bamboo is a total construction material”. In support of the statement what makes Bamboo suitable for construction. Explain including its processing, application benefits and limitations.	CO1	PO 6,7	10
		b)	Elaborate on the different harmful impacts on environment due to the activities involved in Quarrying process. Further, outline at least 4 ways to reduce the environmental impacts due to quarrying.	CO1	PO6, 7	10
			OR			
	2	a)	Explain about Concrete Blocks and Stabilized Mud Blocks considering its basics composition/manufacturing, benefits and limitations.	CO1	PO 6,7	10
		b)	“Lime Pozzolana Cement is a green/sustainable option when compared to regular Cement”. Do you agree to this statement? Justify your decision by elaborating on Lime pozzolana cement.	CO1	PO 6,7	10
			UNIT - II			
	3	a)	With the help of schematic sketches, provide a comparative explanation on Rat trap bond wall and Cavity wall in a detailed manner.	CO2	PO7	10
		b)	Explain on the suitability of Pre Engineered Buildings for Cost effective construction.	CO2	PO7	10
			OR			
	4	a)	Briefly explain on Panel Walls and Ferro Cement construction for their relevance to Cost effective construction practices.	CO2	PO7	10
		b)	Quoting an example of one Indian based Non-Government Organizations (NGO), explain how NGOs are promoting cost effective construction activities.	CO2	PO7	10
			UNIT - III			
	5	a)	Explain the event of Global warming and its effects. How do the	CO3	PO7	10

			building construction practices contribute to Global warming?			
		b)	“Conventional/Regular constructed building is more economical option for initial investment compared to Green building”. Do you agree with this statement? If yes/no, justify with brief explanation on the reasons for your decision.	CO3	PO7	10
			UNIT – IV			
	6	a)	Explain in detail about LEED rating system for green buildings	CO4	PO7	10
		b)	Elaborate on the concept of ‘Integrated Life cycle design of Materials and structure’ considering its key elements.	CO4	PO7	10
			UNIT - V			
	7	a)	With reference to Passive Solar design in buildings explain any 2 options of Solar Passive Heating and Passive cooling concepts each with illustrative sketches.	CO5	PO7	10
		b)	With the help of a flow chart explain on the processes involved in waste water treatment for a sustainable building. Outline at least 4 possible ways where the treated water finds its usage.	CO5	PO7	10
