



CBCS SCHEME

BETCK205B

Second Semester B.E./B.Tech. Degree Examination, June/July 2026 Green Buildings

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M: Marks, L: Bloom's level, C: Course outcomes.*

Module – 1			M	L	C
Q.1	a.	Describe the advantages of using various stones in construction and explain their properties.	08	L2	CO1
	b.	Explain the properties of bricks that make them suitable for green construction.	12	L2	CO1
OR					
Q.2	a.	Explain properties and advantages of Lime-Pozzolana Cement.	10	L2	CO1
	b.	Discuss the various applications of Fiber reinforced cement and fiber reinforced polymer composites in construction.	10	L2	CO1
Module – 2					
Q.3	a.	Explain Flemish bonding in Brick masonry with a sketch and discuss how it influences the structural stability and aesthetic appeal of a wall.	10	L2	CO2
	b.	What is Cavity Wall? Discuss its advantages.	10	L2	CO2
OR					
Q.4	a.	Discuss the role of 'NIRMITHI KENDRA' in promoting sustainable construction.	10	L4	CO2
	b.	Discuss the effectiveness of Ferro-Cement and Ferro-Concrete Constructions Techniques in sustainable projects.	10	L4	CO2
Module – 3					
Q.5	a.	Discuss the causes and effects of Global Warming.	12	L2	CO3
	b.	Discuss the contribution of buildings towards Global Warming.	08	L3	CO3

OR

Q.6	a.	Discuss how initial cost of green building varies compared to conventional building.	10	L2	CO3
	b.	Discuss the global efforts to reduce carbon emissions in green buildings.	10	L2	CO3

Module – 4

Q.7	a.	Explain the principles of the LEED rating system to assess the sustainability of a building project.	12	L3	CO4
	b.	List and explain the characteristics of sustainably managed materials.	08	L2	CO4

OR

Q.8	a.	Evaluate how the 'GRIHA' rating systems focus on energy efficiency, water conservation and waste management can enhance the sustainability of a building.	12	L2	CO3
	b.	Explain the concept of integrated life-cycle design of materials and structures.	08	L2	CO3

Module – 5

Q.9	a.	Explain the solar passive cooling and heating techniques in various climatic conditions.	12	L4	CO5
	b.	Discuss the impact of urban green cover on the built environment in terms of air quality, energy efficiency and residents well-being.	08	L4	CO3

OR

Q.10	a.	Discuss the effectiveness of different solid waste and waste water treatment methods in reducing environmental impact.	10	L4	CO5
	b.	Discuss in detail about any case studies of Solar Passive Cooled and Heated buildings.	10	L4	CO5
