U.S.N.										

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

Autonomous Institute Affiliated to VTU

June 2025 Semester End Main Examinations

Programme: B.E. **Semester: III**

Branch: Civil Engineering **Duration: 3 hrs.**

Course Code: 23CV3PCBMC/ 22CV3PCBMC **Max Marks: 100**

Course: Building Materials and Construction

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)	Briefly explain the manufacturing process of bricks with a flow chart.	CO1	PO1	**10**
	b)	Explain briefly about reinforcing steel, structural steel and timber as a construction material.	CO1	PO1	**10**
		OR			
2	a)	Briefly explain any five different types of cements.	CO1	PO1	**10**
	b)	Write a short note on Solid concrete blocks, Hollow clay blocks, Aerated Concrete blocks and Engineered blocks.	CO1	PO1	**10**
		UNIT - II			
3	a)	What are the requirements of a good foundation? Also discuss any three different types of foundation with neat sketches.	CO2	PO1	**10**
	b)	With a neat sketch explain the different methods of terrace water proofing techniques.	CO3	PO1	**10**
		OR			
4	a)	Discuss different types of damp proofing techniques.	CO3	PO1	**10**
	b)	Discuss on Pre and post anti-termite treatment techniques.	CO3	PO1	**10**
		UNIT - III			
5	a)	Discuss with neat sketches different types of bonds in brick masonry.	CO2	PO1	**10**
	b)	Explain with neat sketches any four different types of arches in masonry construction.	CO2	PO1	**10**

			OR			
	6	a)	Explain with neat sketches the classification of stone masonry.	*CO3*	*PO1*	**14**
		b)	Write a short note on the functions of lintel and Chejja.	*CO2*	*PO1*	**06**
			UNIT - IV			
	7	a)	Explain with neat sketches the classification of pitched roofs.	*CO3*	*PO1*	**10**
		b)	Discuss any four different types of flooring materials and also list the factors affecting the selection of flooring materials.	*CO3*	*PO1*	**10**
			OR			
	8	a)	Explain with a neat sketch any four different types of staircases.	*CO2*	*PO1*	**08**
		b)	Design a doglegged staircase of room dimensions 3.5 m x 5.8 m. The floor to floor height is 3 m. Sketch the plan and sectional elevation.	*CO2*	*PO1*	**12**
			UNIT - V			
	9	a)	Discuss the role and responsibilities of structural and geotechnical engineers in a construction project.	*CO2*	*PO1*	**10**
		b)	Elaborate on the on-site safety protocols adopted in building construction.	*CO2*	*PO1*	**10**
			OR			
	10	a)	Discuss the role and responsibilities of architects and contractors in successful completion of construction project.	*CO2*	*PO1*	**10**
		b)	Elaborate on the National Building Code (NBC) guidelines adopted in building construction.	*CO2*	*PO1*	**10**

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