

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

Autonomous Institute Affiliated to VTU

April 2024 Semester End Main Examinations

Programme: B.E.

Branch: Civil Engineering

Course Code: 19CV3PCBMC

Course: Building Materials and Construction

Semester: III

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.

			UNIT - I	CO	PO	Marks
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.	1	a)	Compare the production process, engineering properties and relative merits and demerits of concrete and bricks.	CO 1	PO1	10
		b)	Discuss the importance and evaluation process for the quality control with respect to cement.	CO 1	PO1	10
	OR					
	2	a)	With a flow chart elaborate the manufacturing process of cement and its evolution over the years.	CO 1	PO1	10
		b)	Discuss any two timber products and their applications in building construction.	CO 1	PO1	10
	UNIT - II					
	3	a)	Illustrate the different components of a load-bearing structure.	CO 2	PO1	10
		b)	Elaborate on the features of a stable foundation and discuss the significance of safe bearing capacity of soil.	CO 2	PO1	10
	UNIT - III					
	4	a)	With a neat sketch discuss any four different types of bonds adopted in brick and stone masonry	CO 3	PO1	10
		b)	Discuss the location and the importance of carrying out the following water proofing and anti-termite treatment	CO 3	PO1	10
UNIT - IV						
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.	5	a)	What is a flat arch and explain its components with a neat sketch	CO 2	PO1	10
		b)	You are in heavy rainfall areas which type of roof is most suitable, discuss with a neat sketch its components.	CO 2	PO1	10
OR						
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.	6	a)	Windows are major building component which ensures light and ventilation. With neat sketches discuss two window types.	CO 2	PO1	10
		b)	List the factors that affect the selection of a flooring material with suitable examples.	CO 2	PO1	10
UNIT - V						
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.	7	a)	Design and draw the plan and elevation of dog legged stair for a stair case of size 2.4meter X 5.0meter. Vertical clear height between floor and roof is 3meters	CO 3	PO3	10
		b)	For a wall that needs to be decorated with plastic emulsion paint, discuss the procedure for carrying out plastering and painting.	CO 2	PO1	10
