

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

**B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY
2025**

Fifth/Sixth Semester

Civil Engineering

CE3003 - Prefabricated Structures

Regulations - 2021

Duration: 3 Hrs

Maximum: 100 Marks

PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)

Q.No	Questions	BL T	CO	Mark s
1.	List any two principles of prefabrication.	L1	1	2
2.	What are the challenges in the erection of prefabricated components?	L2	1	2
3.	How do roof and floor slabs contribute to building stability?	L2	2	2
4.	What are the advantages of using large panel systems?	L2	2	2
5.	How can allowance for joint deformation improve prefabricated construction?	L2	3	2
6.	What are the main loads considered in the design of prefabricated structures?	L1	3	2
7.	What are expansion joints, and why are they necessary?	L2	4	2
8.	How do column-to-foundation connections impact structural stability?	L2	4	2
9.	Define progressive collapse.	L1	5	2
10.	What is the tie force method in progressive collapse prevention?	L1	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)

Q.No	Questions	BL T	CO	Mark s
11.	a What is modular coordination? Explain its benefits and application in prefabricated construction.	L3	1	16
	Or			
	b Illustrate the various stages of prefabrication production and the technologies involved.	L3	1	16
12.	a Explain the behavior and types of structural components in prefabricated construction.	L4	2	16

Or

	b	How do connections between prefabricated components impact the structural integrity of buildings?	L4	2	16
13.	a	Explain about design of cross-section based on efficiency of materials.	L4	3	16
		Or			
	b	Describe about design for stripping, stacking and transportation of the elements.	L4	3	16
14.	a	Explain the types of joints based on force action and function in prefabricated structures.	L4	4	16
		Or			
	b	Explain different types of structural connections used in prefabrication.	L4	4	16
15.	a	Discuss about codal provisions related to progressive collapse prevention.	L3	5	16
		Or			
	b	Explain the role of shear walls and bracing systems in preventing progressive collapse.	L3	5	16