Register Number:……..

KUMARAGURU
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B.E DEGREE EXAMINATIONS: APRIL / MAY 2023

(Regulation 2018)

Sixth Semester

CIVIL ENGINEERING

U18CEE0002**:** Prefabricated Structures

COURSE OUTCOMES

CO1: Identify the principles and systems of prefabrication in the field

CO2: Understand the various prefabricated components for specific use

CO3: Understand the design principles for prefabricated structures

CO4: Classify the structural connections

CO5: Understand the various code provisions regarding progressive collapse.

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-
PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)

1.	List the types of prefabricated construction system.	CO1	[K_1]
2.	Summarize the advantages of prefabricated structures.	CO1	[K_2]
3.	What is the classification of precast large panel?	CO2	[K_1]
4.	Define shear wall.	CO2	[K_1]
5.	How the material used in construction does affect the design of the element?	CO3	[K_2]
6.	Define joint flexibility.	CO3	[K_1]
7.	What are the different types of joints?	CO4	[K_1]
8.	Write the use of expansion joints?	CO4	[K_1]
9.	What is progressive collapse?	CO5	[K_2]
10.	List the possible abnormal effects for prefabricated buildings.	CO5	[K_1]

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11.	a)	Discuss the process of production and transportation of prefabrication.	8	CO1	[K_2]
	b)	List the various equipment's used in the erection of prefabricated system.	8	CO1	[K_2]
12.	a)	What is the necessity of providing shear walls in the precast structures? Also discuss the different types of shear walls.	8	CO2	[K_2]
	b)	Explain the behavior of prefabricated roofs and floor slabs.	8	CO2	[K_2]
13.	a)	Explain the steps involved in the design of column-based efficiency of material used.	8	CO3	[K_2]
	b)	Discuss the necessity of disuniting of prefabricated structures and the precaution taken during disuniting of prefabricated structures.	8	CO3	[K_2]
14.	a)	Explain the types of structural joints and also the requirements of joints.	8	CO4	[K_2]
	b)	Explain the joint Techniques and materials used in details.	8	CO4	[K_2]
15.	a)	Explain the codal provisions for progressive collapse and detail the importance of avoidance of progressive collapse.	8	CO5	[K_L]
	b)	Explain the Methods of Avoiding Disproportionate Collapse.	8	CO5	[K_L]
16.	a)	Explain necessity of prefabrication in India	8	CO1	[K_2]
	b)	Explain Modular Coordination in detail.	8	CO1	[K_2]

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