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PRESIDENCY UNIVERSITY

BENGALURU

Mid - Term Examinations – October 2025

Date: 08-10-2025

Time: 11.45am to 01.15pm

School: SOE	Program: B.Tech (Civil Engineering)	
Course Code : CIV2019	Course Name: Advanced Concrete Technology	
Semester: V	Max Marks: 50	Weightage: 25%

CO - Levels	CO1	CO2	CO3	CO4	CO5
Marks	26	24			

Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2 marks.

5Q x 2M=10M

1	List the important properties of cement that influences the quality of concrete the most.	2 Marks	L1	CO1
2	Mention the various types of cement as per Indian Standards.	2 Marks	L1	CO1
3	Discuss the various benefits of using admixtures in concrete.	2 Marks	L2	CO1
4	Define (i) plastic shrinkage (ii) drying shrinkage.	2 Marks	L1	CO2
5	What is creep in concrete? List any four factors that influences creep.	2 Marks	L1	CO2

Part B

Answer the Questions.

Total Marks 40M

6.	a.	Discuss the properties of aggregates and its effect on workability and strength of concrete.	10 Marks	L2	CO 1
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Or

7.	a.	With the help of a graph explain the stages of evolution of heat during hydration process.	10 Marks	L2	CO 1
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8.	a.	Name any three normal range and high range plasticizers used as water reducers in concrete. Also differentiate between plasticizers and super plasticizers.	10 Marks	L2	CO 1
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Or

9.	a.	Write a note on any two types of mineral admixtures.	10 Marks	L2	CO 1
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10.	a.	Discuss the various factors influencing the durability of concrete.	10 Marks	L2	CO 2
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Or

11.	a.	Explain the stress strain behavior of concrete with the help of a graph mentioning all the salient features.	10 Marks	L2	CO 2
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12.	a.	Classify the various types of shrinkages in concrete.	10 Marks	L3	CO 2
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Or

13.	a.	Illustrate the combined effect of shrinkage and creep on concrete.	10 Marks	L3	CO 2
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