



PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – May/June 2026

Date: 18- 05-2026

Time: 09:30am – 12:30pm

School: SOE	Program: B. Tech (Civil Engineering)	
Course Code: CIV2100	Course Name: Building Materials and Concrete Technology	
Semester: II	Max Marks: 100	Weightage: 50%

CO - Levels	C01	C02	C03	C04	C05
Marks	14	14	24	24	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 2marks.

10Q x 2M=20M

1.	State the meaning of dressing and seasoning of stones?	2 Marks	L1	C01
2.	Define toughness and Hardness of building materials.	2 Marks	L1	C01
3.	Define consistency of cement.	2 Marks	L1	C02
4.	Write the functions of chemical admixtures.	2 Marks	L1	C02
5.	Write the components of concrete with percentage.	2 Marks	L1	C03
6.	Define water–cement ratio used in concrete mix.	2 Marks	L1	C03
7.	Name the various tests conducted to find the slump of the concrete.	2 Marks	L1	C04
8.	Define shrinkage and creep of concrete.	2 Marks	L1	C04
9.	Define grade of concrete with an example.	2 Marks	L1	C05
10.	Write the objectives of Mix design of concrete.	2 Marks	L1	C05

Part B

Answer the Questions.

Total Marks 80M

11	a.	Explain the characteristics of good building stones and their significance in construction.	10 Marks	L2	C01
	b.	Explain the characteristics of good bricks.	10 Marks	L2	C02
Or					
12	a.	Explain the classification of aggregates based on size, unit weight and shape.	10 Marks	L2	C01
	b.	Discuss the procedure for conducting sieve analysis of aggregates.	10 Marks	L2	C02
13	a.	Discuss the functional Role of ingredients of concrete.	10 Marks	L2	C03
	b.	Explain any five factors affecting workability.	10 Marks	L2	C03
Or					
14	a.	Enumerate the procedure to conduct the slump cone test.	10 Marks	L2	C03
	b.	Explain the different types of slumps with neat sketch.	10 Marks	L2	C03
15	a.	Explain the factors affecting the strength of concrete.	10 Marks	L2	C04
	b.	Discuss the procedure to conduct the test for compressive strength of concrete.	10 Marks	L2	C04
Or					
16	a.	Explain the three types of shrinkage in concrete.	10 Marks	L2	C04
	b.	Explain different methods of curing of concrete.	10 Marks	L2	C04
17	a.	Design a concrete mix proportion for M40 grade concrete by IS method using the following details: • Grade designation – M40 • Type of Cement – PPC conforming to IS 1489 (Part 1) having specific gravity of 2.88 • Maximum nominal size of aggregates: 20mm • Fine aggregates: confirming to grading zone II • Workability :75mm (slump) • Exposure condition: severe condition for RCC • Method of concrete placing : chute (non pumpable) • specific gravity of coarse aggregate : 2.74 • specific gravity of fine aggregate : 2.65 • specific gravity of chemical admixture (super plasticizer) : 1.145 Assume any suitable data if required.	20 Marks	L3	C05

Or					
18	a.	Design a concrete mix proportion for M35 grade concrete by IS method using the following details: • Grade designation – M35 • Type of Cement – 43-grade confirming to IS 8112 having specific gravity of 3.15 • Minimum cement content – 340 kg/m³ • Maximum water cement ratio – 0.45 • Workability – 100mm (slump) • Exposure condition - Severe condition for RCC • Crushed angular aggregates size of aggregates –20mm • specific gravity of coarse aggregate : 2.67 • Fine aggregate : Zone II (specific gravity of F.A is 2.62) • Chemical admixture type – super plasticizers • Specific gravity of super plasticizers : 1.145 Assume any suitable data if required.	20 Marks	L3	C05