

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***UG/PG DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2026***Third Semester**Civil Engineering***UCETL24302 – CONSTRUCTION MATERIALS AND TECHNOLOGY***Regulations - 2024**Duration : 3 Hrs**Maximum : 100 Marks***PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)**

Q.No	Questions	BTL	CO	Marks
1.	Define Ceramic.	L2	1	2
2.	Why Dressing of Stone is required.	L1	1	2
3.	What is known as clinker?	L1	2	2
4.	What is meant by grading of aggregates?	L1	2	2
5.	What are admixtures?			
6.	What are the factors affecting proportioning of concrete mixes?			
7.	What are the steps adopted to control bleeding?	L1	3	2
8.	Define Segregation.	L2	3	2
9.	Predict when RMC is recommended?	L3	5	2
10.	Compare between HPC and HSC.	L2	5	2

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

Q.No	Questions	BLT	CO	Marks
11. a i	Briefly explain additives in the manufacture of bricks with neat sketches.	L2	1	8
	ii Explain in detail about test on stones.	L3	1	8
	Or			
b	Explain about the purpose and advantages of different composite materials.	L4	1	16
12. a	Illustrate the following tests in neat drawings. (a) Fineness Test on cement (8) (b) Setting time test on cement (8)	L3	2	16
	Or			
b i	Explain the process of hydration of cement.	L2	2	6
	ii Explain briefly the various types & tests on fine and coarse aggregates.	L3	2	10
13. a i	What are the applications of concrete and explain briefly?	L3	3	6
	ii List the types of mixing of concrete and write brief note on it.	L1	3	10
	Or			
b	Design the concrete mix for the following data: characteristic compressive strength=20mpa, maximum size of aggregate =20mm (angular), degree of workability =0.9CF, degree of quality control =good and type of exposure=severe. Water absorption by CA =0.5% and moisture concrete FA=2.0%. Assume any suitable missing data.	L4	3	16

14.	a	i	What are the reasons for the cracking of concrete and how does it affect durability.	L2	4	8
		ii	Explain any two tests for testing of hardened concrete.	L2	4	8
Or						
	b	i	Explain any two tests for testing of fresh concrete.	L2	4	8
		ii	What are the various factors which affect the workability of concrete?	L2	4	8
15.	a	i	Write in detail about Self Compacting Concrete.	L3	5	8
		ii	Discuss in detail about High Strength Concrete.	L3	5	8
Or						
	b	i	Explain properties of polymer concrete? And with types.	L3	5	8
		ii	What are various factors affecting properties of Fibre Reinforced concrete? And write applications of Fibre Reinforced concrete?	L2	5	8
