

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***UG/PG DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2026*****First Semester******M.E Construction Engineering and Management*****PCNT2401 - MODERN CONSTRUCTION MATERIALS*****Regulations - 2024******Duration: 3 Hrs.******Maximum: 100 Marks******PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)***

Q.No	Questions	BTL	CO	Marks
1.	Cite wood as a structural member.	L2	1	2
2.	Classify coatings.	L1	1	2
3.	Give the criteria for the selection of non-structural materials.	L2	2	2
4.	Infer dry walls.	L1	2	2
5.	List out the various types of plastics.	L2	3	2
6.	Express the use of glass in construction.	L2	3	2
7.	Write any two differences between high-strength and normal concrete.	L2	4	2
8.	Mention the requirements for self-compacting concrete.	L1	4	2
9.	Differentiate smart and intelligent materials.	L2	5	2
10.	Recall Nano Concrete.	L1	5	2

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

Q.No	Questions	BLT	CO	Marks
11. a	i Detail the manufacturing process of steel with a flowchart.	L2	1	8
	ii List the properties of aluminum in construction.	L2	1	8
Or				
b	i Enlist the advantages of new alloy steels in construction.	L2	1	8
	ii Elaborate on the importance of coatings to reinforcement.	L2	1	8
12. a	i Explain the types and properties of water proofing materials used in construction.	L2	2	8
	ii Write a note on acoustic treatment materials. Discuss brief.	L2	2	8
Or				
b	i Discuss the types of non-weathering materials and its uses.	L2	2	8
	ii List the types of polymer floor finishes. Give the merits and demerits of each.	L2	2	8

13.	a	i	Predict the advantages and applications of reinforced polymers.	L2	3	8
		ii	Discuss the environmental concerns related to the use of plastics.	L2	3	8
Or						
	b	i	Discuss the properties and manufacturing process of polymers in detail.	L2	3	8
		ii	Detail the types and advantages of using FRP in construction.	L2	3	8
14.	a	i	Discuss the properties and advantages of Fibre Reinforced Concrete.	L2	4	8
		ii	Infer the properties and advantages of high-strength and high-performance concrete.	L2	4	8
Or						
	b	i	Compare and contrast the properties, advantages and applications of Self Compacting Concrete and Geo Polymer Concrete	L2	4	8
		ii	Explain the significance of special concrete in modern construction.	L2	4	8
15.	a	i	Discuss the types and special features of smart and intelligent materials.	L2	5	8
		ii	Assess the role of nanotechnology in construction with suitable examples	L2	5	8
Or						
	b	i	Elucidate how smart and intelligent materials enhance construction performance.	L2	5	8
		ii	Explain the use of smart and intelligent materials in real-life projects with case studies.	L2	5	8
