

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)
UG/PG DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2026
Sixth Semester
Mechanical Engineering
CME355 - MATERIAL HANDLING AND SOLID PROCESSING EQUIPMENT

Regulations - 2021

Duration : 3 Hrs

Maximum : 100 Marks

PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)

Q.No	Questions	BLT	CO	Marks
1.	List the objectives of material handling?	L1	1	2
2.	Differentiate between manual and automated material handling.	L2	1	2
3.	State the function of a pallet lift truck?	L2	2	2
4.	List two advantages of industrial tractors	L1	2	2
5.	Mention the function of a roller conveyor?	L2	3	2
6.	How do hydraulic conveyors work?	L2	3	2
7.	What is the function of a pallet loader?	L2	4	2
8.	Enumerate the uses of ropes in hoisting equipment.	L1	4	2
9.	What are the major components of a robot?	L1	5	2
10.	Differentiate between storage and bulk handling.	L2	5	2

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

Q.No	Questions	BLT	CO	Marks
11.	a i Explain the classification of material handling equipment with examples.	L2	1	10
	ii What is unit load concept? Explain its importance in material handling.	L2	1	6
Or				
	b i Describe the selection criteria for material handling equipment.	L2	1	10
	ii Explain how automation impacts material handling processes.	L2	1	6
12.	a Explain the different types of industrial vehicles used in material handling.	L2	2	16
	Or			
	b i What is a straddle carrier? Explain its working and applications.	L2	2	8
	ii Discuss the applications and advancements in industrial vehicles.	L2	2	8
13.	a Explain the classification of conveyor systems. Discuss with applications.	L2	3	16
	Or			
	b i Discuss the factors affecting the selection of a conveyor system.	L2	3	8
	ii Explain how modern automation has improved conveyor systems.	L2	3	8
14.	a i Explain the parts of hoisting equipment in detail.	L2	4	8
	ii Describe the uses and selection criteria for ropes in hoisting.	L2	4	8

Or

	b	i	Compare elevators and cranes used in material handling.	L2	4	8
		ii	Explain the working principle and applications of derricks.	L2	4	8
15.	a		Explain the different types of bulk handling equipment with suitable diagrams.	L2	5	16
			Or			
	b		Describe the different types of robotic handling systems.	L2	5	16
