Register No : _____

THE KAVERY ENGINEERING COLLEGE

(An Autonomous Institution)

B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, NOV /DEC 2024

Third Semester

Department of Mechanical Engineering

ME3393- MANUFACTURING PROCESS

Regulations – 2021

Duration : 3 Hrs *Maximum : 100 Marks*

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

Q.No	*Questions*	*BLT*	*CO*	*Marks*
1.	What are the merits of CO_2 process?.	RE	1	2
2.	What is the function of riser in moulding?.	RE	1	2
3.	What is the role of fluxes in welding?.	RE	2	2
4.	List any four applications of TIG welding process.	AN	2	2
5.	What are the four major draw backs of hot working?.	RE	3	2
6.	What do you understand by recrystallisation temperature?.	RE	3	2
7.	Mention any four products produced by spinning process?	AP	4	2
8.	What are the applications of super plastic forming process?	RE	4	2
9.	What are the characteristics of thermosetting plastics?	RE	5	2
10.	What is meant by film blowing?	RE	5	2

*PART – B (ANSWER ALL QUESTIONS) (Marks 5*13 = 65)*

Q.No			*Questions*	*BLT*	*CO*	*Marks*
11.	a	i	Explain about core in moulding process.	UN	1	6
		ii	Explain the construction and working of Cupola furnace with neat diagram	UN	1	7
			Or			
	b	i	Briefly explain the cold chamber die casting with a neat sketch.	AP	1	7
		ii	What are the advantages of centrifugal casting process?.	RE	1	6
12.	a	i	Explain the electron beam welding process with a neat sketch	UN	2	7
		ii	Write a brief note on “Welding defects”	AP	2	6
			Or			
	b	i	Describe shielded metal arc welding process with suitable diagram. What are its applications?	AP	2	7
		ii	What is the difference between welding, brazing and soldering process?	UN	2	6
13.	a	i	Describe hydrostatic extrusion process	AP	3	7
		ii	Compare press forging and hammer forging	UN	3	6
			Or			

	b	i	Explain with a sketch about flat strip rolling.	AP	3	7
		ii	Explain the tube piercing process	UN	3	6
14.	a		What is deep drawing operation? Explain with a neat sketch	AP	4	13
			Or			
	b	i	What is super plastic forming?	EV	4	4
		ii	Determine a) blank diameter b) least no. drawing operations c) force and energy for the first draw with 40% reduction to produce a cup of 5 cm in diameter and 7.5cm deep to be drawn from1.5mm thick drawing steel with a tensile strength of 315 N/mm^2	EV	4	9
15.	a	i	Describe any method of bonding thermoplastics	UN	5	6
		ii	What is laminating? Explain the low pressure method of laminating	RE	5	7
			Or			
	b	i	Explain blow moulding process with its salient features	UN	5	6
		ii	What are the additives to be mixed in processing plastics and explain the purpose of each.	RE	5	7

*PART – C (Marks 1*15 = 15)*

Q.No			*Questions*	*BLT*	*CO*	*Marks*
16.	a	i	Sketch the three types of Oxy-acetylene flames and state their characteristics and applications.	AP	2	8
		ii	Describe the electro-slag welding process with a neat sketch.	UN	2	7
			Or			
	b	i	Describe the explosive forming process.	AP	3	7
		ii	How are Aluminum kitchen utensils produced?	UN	3	8