

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, NOV/DEC 2025***Third Semester**Mechanical Engineering***UMETL24302 - Manufacturing Processes***Regulations - 2024**Duration : 3 Hrs**Maximum : 100 Marks****PART - A (ANSWER ALL QUESTIONS) (Marks 10*2=20)***

<i>Q.No</i>	<i>Questions</i>	<i>BTL</i>	<i>CO</i>	<i>Marks</i>
1.	What are the properties of molding sand?	L1	1	2
2.	For what types of products might a loose piece pattern be required? Give an example.	L1	1	2
3.	State any two disadvantages of submerged arc welding.	L1	2	2
4.	Why is flux used in brazing?	L2	2	2
5.	What is the angle of the nip in the rolling process?	L1	3	2
6.	Define the terms 'Weld Decay' and 'Dilution'.	L1	3	2
7.	Define stretch forming process.	L1	4	2
8.	Briefly explain Spring back in bending operation.	L2	4	2
9.	What are the essential requirements for material in the composites?	L1	5	2
10.	List out the applications of ceramic matrix.	L1	5	2

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

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a Briefly explain the procedure to be followed for making a sand mould. Or b Summarize shell molding process and its applications, advantages and limitations.	L2	1	16
12.	a Elucidate with a neat sketch, principle and processes of thermit welding. Or b Explain gas metal arc welding process with a schematic diagram and elaborate its industrial applications.	L2	2	16
13.	a Discuss hot and cold rolling processes and its applications. Or b Short note on the following with applications: (i) Drop forging (ii) Upset forging (iii) open die forging	L3	3	16

14.	a	Describe the working principle of the Electro hydraulic forming process with the help of a neat sketch. Also list out its advantages.	L2	4	16
		Or			
	b	Describe any four shearing operations in sheet metal works with a neat sketch.	L2	4	16
15.	a	What are the different types of matrices used in composites? Explain about any three.	L2	5	16
		Or			
	b i	Demonstrate how are ceramic matrix composites prepared?	L2	5	8
	ii	Summarize Glass fabrication process and write its advantages and disadvantages.	L2	5	8