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## Third Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025

### Manufacturing Process

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.  
2. M : Marks , L: Bloom's level , C: Course outcomes.*

Module – 1			M	L	C
Q.1	a.	Define casting process, with a neat sketch explain Sand casting process.	10	L2	CO1
	b.	State and explain various defects in casting.	5	L2	CO1
	c.	Explain the different properties of molding sand.	5	L2	CO2
OR					
Q.2	a.	With a neat sketch explain gas fired pit furnace.	10	L2	CO1
	b.	With a neat sketch explain injection moulding process.	10	L2	CO1
Module – 2					
Q.3	a.	Define welding. With a neat sketch explain submerged arc welding process.	10	L3	CO2
	b.	State and explain the different types of welding defects.	5	L2	CO1
	c.	Explain the advantages and applications of welding process	5	L2	CO1
OR					
Q.4	a.	With a neat sketch explain the oxy – acetylene welding process.	10	L2	CO2
	b.	Sketch and explain friction welding process.	10	L2	CO3
Module – 3					
Q.5	a.	Write the classification of lathe. Explain any four operations performed on lathe machine.	10	L2	CO1
	b.	With a neat sketch explain any five operations performed on milling machine.	10	L2	CO2
OR					
Q.6	a.	Sketch and explain the working principle of a drilling machine.	12	L3	CO3
	b.	Differentiate between a shaping and a slotting machine.	8	L2	CO3
Module – 4					
Q.7	a.	Explain the different sheet metal operations with a neat sketch.	10	L2	CO2
	b.	Differentiate between cold working and hot working processes.	10	L2	CO2
OR					
Q.8	a.	What is 3D printing? Explain the advantage and applications of 3D printing.	10	L3	CO3
	b.	Sketch and explain the working of progressive die used in sheet metal work.	10	L2	CO3
Module – 5					
Q.9	a.	With a neat sketch explain ultrasonic machining process and state its applications.	10	L3	CO4
	b.	With a neat sketch explain Laser beam machining and state its advantages.	10	L3	CO4
OR					
Q.10		Write short notes on the following :	20	L3	CO4
	a.	Lapping			
	b.	Honing			
	c.	Grinding wheels			
	d.	Super finishing process.			