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

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.	With a neat sketch, explain the concept of gating and risering.	10	L2	CO1
	b.	Briefly explain the different steps involved in casting.	10	L2	CO1
OR					
Q.2	a.	Discuss the types of allowances given to a pattern.	10	L3	CO1
	b.	With a neat sketch, explain jolting machine.	10	L2	CO1
Module – 2					
Q.3	a.	Elaborate with a neat sketch pressure die casting process.	10	L3	CO1
	b.	Briefly explain with a neat sketch direct arc furnace.	10	L3	CO1
OR					
Q.4	a.	With a neat diagram, explain the working of cupola furnace.	10	L2	CO1
	b.	Elaborate with a neat sketch sweep moulding.	10	L3	CO1
Module – 3					
Q.5	a.	Define welding and list out the merits and demerits.	10	L1	CO2
	b.	With a neat sketch, explain the oxy acetylene gas welding process.	10	L2	CO2
OR					
Q.6	a.	Define brazing. Explain the difference methods of brazing with simple sketches.	10	L2	CO2
	b.	Compare the soldering and brazing process.	10	L3	CO2
Module – 4					
Q.7	a.	Briefly explain the Elastic and plastic deformation.	10	L2	CO3
	b.	With a neat sketch, describe various types of forging process.	10	L2	CO3
OR					
Q.8	a.	Explain the following terms : i) Trimming ii) Notching iii) Piercing iv) Coining v) Embossing	10	L2	CO3
	b.	Briefly explain with a neat sketch, hot rolling and cold rolling techniques.	10	L2	CO3

Module – 5					
<b>Q.9</b>	<b>a.</b>	Outline a single point cutting for turning in lathe and explain.	<b>10</b>	<b>L3</b>	<b>CO4</b>
	<b>b.</b>	List out the desirable properties cutting tool materials.	<b>10</b>	<b>L2</b>	<b>CO4</b>
<b>OR</b>					
<b>Q.10</b>	<b>a.</b>	Calculate the required rpm of workpiece of 150 mm diameter if provide a cutting speed of 50 rpm. Also find the machining time if length of work is 400 mm and feed is 0.4 mm/rev.	<b>10</b>	<b>L3</b>	<b>CO4</b>
	<b>b.</b>	Outline the milling machine and explain.	<b>10</b>	<b>L3</b>	<b>CO4</b>

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