

U.S.N.

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

June 2025 Semester End Main Examinations**Programme: B.E.****Semester: IV****Branch: Mechanical Engineering****Duration: 3 hrs.****Course Code: 23ME4PCMFT / 22ME4PCMFT****Max Marks: 100****Course: Manufacturing Technology**

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.			UNIT - I	CO	PO	Marks
	1	a)	Explain the nomenclature of a single point cutting tool with a sketch.	CO2	PO1	10
		b)	Determine percentage change in cutting speed required to give 50% reduction in tool life (i.e., to reduce tool life to 1/5 of its previous value). Take $n = 0.2$.	CO2	PO1	10
			OR			
	2	a)	List any ten properties of cutting fluids	CO1	PO1	10
		b)	Enumerate the difference between Shaper and a Planer	CO1	PO1	10
			UNIT - II			
	3	a)	Explain the parts of a radial drilling machine with a sketch.	CO1	PO1	10
		b)	Explain the parts of a Column and Knee milling machine with a sketch	CO2	PO1	10
			OR			
	4	a)	What is the fundamental role of abrasive materials and bonding materials in grinding operations?	CO2	PO2	10
		b)	Discuss lapping and honing process with sketches	CO2	PO1	10
			UNIT - III			
	5	a)	What is Hot and Cold working?	CO2	PO2	05
		b)	What is Forging and list some of the defects in forged parts	CO2	PO1	05
		c)	What are the different forging processes? Explain	CO2	PO2	10
			OR			

	6	a)	List and explain types of Roll mill configurations	CO1	PO2	12
		b)	Explain the applications of rolling	CO1	PO2	08
			UNIT - IV			
	7	a)	What is Extrusion Process and explain types of extrusion.	CO2	PO1	10
		b)	Explain Electro hydraulic forming and Electromagnetic forming	CO2	PO2	10
			OR			
	8	a)	Discuss wire drawing and rod drawing with sketch	CO2	PO1	10
		b)	Explain the operation and application of explosive forming.	CO2	PO2	10
			UNIT - V			
	9	a)	What is Blanking, Punching, Piercing and Nibbling?	CO2	PO1	10
		b)	Discuss the types of defects in sheet metal formed components.	CO2	PO2	10
			OR			
	10	a)	Explain the various types of turning and milling fixtures?	CO2	PO2	10
		b)	Explain the types of drill jigs?	CO1	PO1	10
