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

Autonomous Institute Affiliated to VTU

April 2024 Semester End Main Examinations

Programme: B.E.

Semester: III

Branch: Industrial Engineering and Management

Duration: 3 hrs.

Course Code: 22IM3PCMAP

Max Marks: 100

Course: Manufacturing Process

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

			UNIT - I			CO	PO	Marks
1	a)	Discuss about the following i) index plate ii) Simple indexing iii) Compound indexing				<i>CO1</i>		10
	b)	Derive Merchant's Circle Diagram, with all necessary assumptions.				<i>CO2</i>	<i>PO1</i>	10
UNIT - II								
2	a)	Discuss about the Constituents of Molding Sand and types of additives used in that.				<i>CO1</i>		10
	b)	Write a brief description of the Squeeze casting process.				<i>CO1</i>		10
OR								
3	a)	Brief on the properties of Base Sand.				<i>CO1</i>		10
	b)	Explain with a neat diagram, the working principle of Continuous Casting process				<i>CO1</i>		10
UNIT - III								
4	a)	Explain the Laser Beam Machining (LBM) process using a neat diagram. Also mention its advantages and disadvantages.				<i>CO1</i>		10
	b)	Explain the Eddy Current Testing Process used in NDT, with a neat diagram. Also state its applications				<i>CO1</i>		10
OR								
5	a)	Explain the working principle of electro discharge machining with neat sketch.				<i>CO1</i>		10
	b)	Explain the Ultrasonic inspection method with a neat diagram				<i>CO1</i>		10

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 - IV					
6	a)	Explain the Thermit welding process with appropriate diagrams.	<i>CO1</i>		10
	b)	What is meant by Explosive welding? Describe using a neat sketch.	<i>CO1</i>		10
UNIT - V					
7	a)	Discuss about the die design parameters in closed die forging	<i>CO1</i>		10
	b)	Discuss about the factors that govern the selection of a grinding wheel	<i>CO1</i>		10

B.M.S.C.E. - ODD SEM 2023-24