U.S.N.										

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

Autonomous Institute Affiliated to VTU

July 2023 Semester End Main Examinations

Programme: B.E. **Semester: VI**
Branch: Mechanical Engineering **Duration: 3 hrs.**
Course Code: 20ME6DEDIM **Max Marks: 100**
Course: Digital Manufacturing **Date: 17.07.2023**

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)	Define Digital Manufacturing, Explain the Operation Mode.	*CO4*	*PO1*	**10**
	b)	Explain the Architecture of Digital Manufacturing system.	*CO3*	*PO1*	**10**
		UNIT - II			
2	a)	Explain the three-dimensional modelling schemes.	*CO2*	*PO1*	**10**
	b)	Explain Assembly and Parametric modelling.	*CO2*	*PO1*	**10**
		UNIT - III			
3	a)	What is Reverse Engineering? Explain the Reverse Engineering process with a sketch.	*CO2*	*PO1*	**10**
	b)	List the need for Reverse Engineering and Classify Reverse Engineering software based on their applications.	*CO2*	*PO1*	**10**
		OR			
4	a)	What is tool path generation in CAM. How is the tool path generated?	*CO2*	*PO1*	**10**
	b)	Explain the various types of contact and non contact type Reverse Engineering hardware.	*CO2*	*PO1*	**10**
		UNIT - IV			
5	a)	Discuss the working of Sanders model market with a sketch.	*CO1*	*PO1*	**10**
	b)	Explain the working of JP system five with a sketch.	*CO1*	*PO1*	**10**
		OR			
6	a)	Explain the typical structure of virtual factory simulator.	*CO5*	*PO1*	**10**
	b)	Explain the benefits of Virtual Manufacturing.	*CO5*	*PO1*	**10**

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			UNIT - V			
	7	a)	What is product life cycle management systems briefly explain with a sketch.	*CO6*	*PO1*	**10**
		b)	What are the types of product data or product information in PLM.	*CO6*	*PO1*	**10**

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