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

Autonomous Institute Affiliated to VTU

September / October 2023 Supplementary Examinations

Programme: B.E.

Branch: Mechanical Engineering

Course Code: 20ME6DEDIM

Course: Digital Manufacturing

Semester: VI

Duration: 3 hrs.

Max Marks: 100

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

1	a) Define Digital Manufacturing, Explain the operation mode.	10
	b) Explain the architecture of Digital manufacturing system.	10

UNIT - II

2	a) With neat sketches discuss the main types of geometric modelling.	10
	b) Discuss Parametric and Assembly modelling.	10

UNIT - III

3	a) Define reverse engineering. List the need for reverse engineering.	10
	b) List and explain the reverse engineering hardware.	10

OR

4	a) What is tool path generation in CAM? How is the tool path generated?	10
	b) List any five reverse engineering software based on application and explain.	10

UNIT - IV

5	a) Discuss the working of thermoink jet printers with a neat sketch.	10
	b) Discuss the working of JP system five with a sketch.	10

OR

6	a) Discuss the typical structure of virtual factory simulator.	10
	b) Discuss the benefits of Virtual Manufacturing by considering an example.	10

UNIT - V

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