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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.