

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

Autonomous Institute Affiliated to VTU

September / October 2023 Supplementary Examinations

Programme: B.E.

Semester: III

Branch: Industrial Engineering & Management

Duration: 3 hrs.

Course Code: 21IM3DCMAP

Max Marks: 100

Course: Manufacturing Process

Date: 15.09.2023

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

UNIT - I

1	a) Write a note on the Terminology used in case of a Single Point Cutting Tool.	10
	b) Discuss the various types of chips formed during metal cutting. Under what conditions do they occur?	10

OR

2	a) What is the difference between Orthogonal and Oblique Metal Cutting?	10
	b) Discuss the various types of cutting tool materials used in the workshop.	10

UNIT - II

3	a) With the aid of a Block diagram, explain the various stages in the Rapid Prototyping process.	10
	b) Explain the FDM process in Rapid Prototyping using a neat sketch.	10

UNIT - III

4	a) Discuss Sweep Pattern with the help of a neat sketch. Also, mention its applications.	10
	b) Explain the constructional features and working principle of a Horizontal Type Centrifugal Casting machine.	10

OR

5	a) Write a brief description of the Squeeze casting process.	10
	b) Mention the various desirable properties of Base Sand.	10

UNIT - IV

6	a) With the aid of a neat sketch, explain the MIG welding process.	10
	b) Write a note on the different kinds of flame used in oxy-acetylene welding.	10

UNIT - V

7 a) Explain with a neat sketch the following: **10**

- i) Dye Penetration Testing
- ii) Magnetic Particle Inspection

b) Write a note on the following welding defects along with their remedies. **10**
Include neat sketches:

- i) Undercut
- ii) Incomplete Fusion

SUPPLEMENTARY EXAMS 2023