

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

Autonomous Institute Affiliated to VTU

May 2023 Semester End Main Examinations

Programme: B.E.

Branch: Mechanical Engineering

Course Code: 22ME3PCMAP / 19ME3DCMAP

Course: Manufacturing Processes

Semester: III

Duration: 3 hrs.

Max Marks: 100

Date: 15.05.2023

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

UNIT - I

- 1 a) Explain steps involved in Metal casting. **10**
b) List out advantages and disadvantages of casting and state its applications. **10**

OR

- 2 a) Explain desirable properties of sand mould used for metal casting. **10**
b) List and explain various pattern allowances used in design of pattern. **10**

UNIT - II

- 3 a) Explain progressive solidification with a neat sketch. **10**
b) Explain elements of gating system with a neat sketch. **10**

OR

- 4 a) Describe any five defects in casting with causes and remedies. **10**
b) Explain the process of centrifugal casting with illustration. **10**

UNIT - III

- 5 a) Explain the formation of different zones in welding with illustration. **10**
b) Explain how resistance spot and seam welding is performed with illustration. **10**

UNIT - IV

- 6 a) Explain atomization and electrolysis methods of powder preparation with neat sketches. **10**
b) Explain powder deposition technique with illustration. **10**

UNIT - V

- 7 a) Explain the process of Laser Engineered Net Shaping with a neat sketch. List its applications. **10**
b) Describe the process of Selective laser sintering with a neat sketch. **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.