

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: 19ME3DCMAP / 15ME3DCFWT

Course: Manufacturing Processes/ Foundry and Welding Technology

Semester: III

Duration: 3 hrs.

Max Marks: 100

Date: 22.09.2023

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) List out the casting advantages, limitations and applications. 10
- b) Describe any five patterns with neat sketch. 10

OR

2. a) Elaborate the various types of additives used in moulding sand. 10
- b) Describe the properties of moulding sand. 10

UNIT - II

3. a) Elaborate the various types of gates with neat sketches. 10
- b) Describe the solidification variables with sketches. 10

OR

4. a) With neat sketch describe the continuous casting process. 10
- b) Explain any five sand casting defects with sketch. 10

UNIT - III

5. a) Describe the laser beam welding process with neat sketch. 10
- b) Discuss the causes and remedies of welding defect. 10

UNIT - IV

6. a) Elaborate the compacting cycle for a single level component with 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.

- b) With neat sketch describe the powder extrusion process with neat sketch. **10**

UNIT - V

7. a) With neat sketch describe the laminated object manufacturing process. **10**
- b) Describe the laser engineered net shaping process with neat sketch. **10**

SUPPLEMENTARY EXAMS 2023