

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

Autonomous Institute Affiliated to VTU

September / October 2023 Supplementary Examinations

Programme: B.E.

Semester: III

Branch: Mechanical Engineering

Duration: 3 hrs.

Course Code: 19ME3DCMAP / 15ME3DCFWT

Max Marks: 100

Course: Manufacturing Processes/ Foundry and Welding Technology

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