

Code No.: ME304PC

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**CMR ENGINEERING COLLEGE: : HYDERABAD**  
**UGC AUTONOMOUS**  
**II-B.TECH-I-Semester End Examinations (Regular) - January- 2022**  
**PRODUCTION TECHNOLOGY**  
**(MECH)**

[Time: 3 Hours]

[Max. Marks: 70]

**Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART-A**

(20 Marks)

1. a) What are the advantages and applications of Investment casting? [2M]
- b) What are the applications of sweep pattern? [2M]
- c) What are different types of flames in welding? Explain. [2M]
- d) Explain various welding positions [2M]
- e) Explain the basic principle of resistance welding. [2M]
- f) Describe the difference between brazing and soldering. [2M]
- g) What is Coining and Spinning? [2M]
- h) Explain the advantages of cold working. [2M]
- i) Write short note on forging die design. [2M]
- j) List out the press tools used in production. [2M]

**PART-B**

(50 Marks)

2. Describe the process of Centrifugal casting with neat sketch. What are the advantages? [10M]
- OR**
3. Draw the neat sketches of bottom and top gating systems and explain. [10M]
  4. What is Thermit welding? Explain the process. Also list any three advantages and limitations. [10M]
- OR**
5. What is meant by edge preparation? Show neat sketches of various edge preparations and explain different forge welding techniques. [10M]
  6. Explain about TIG and MIG welding techniques. Give the applications of each. [10M]
- OR**
7. What are different welding defects? Write briefly about seven defects, their causes and remedies. [10M]
  8. Why Recovery, Recrystallization and Grain growth are required after plastic deformation of a metal. Explain these process. [10M]
- OR**
9. Derive the expression for roll separating force and power in Rolling. [10M]
  10. Explain clearly about Rotary Forging. [10M]
- OR**
11. Discuss the advantages and limitations of Electro hydraulic Forming and rubber pad Forming. [10M]

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