

Code: ME4T5

II B.Tech - II Semester – Regular Examinations - JUNE 2014

**PRODUCTION TECHNOLOGY
(MECHANICAL ENGINEERING)**

Duration: 3 hours

Marks: 5x14=70

Answer any FIVE questions. All questions carry equal marks

1. a) State the advantages, disadvantages and applications of Casting. 7 M
- b) Explain different types of molds. Write the basic steps in mold preparation. 7 M
2. a) Explain the concept of Directional Solidification. Give the broad classification of Solidification processes in metal casting. 7 M
- b) Explain the operation of Cupola. 7 M
3. a) Explain the characteristics of Arc-Welding machine in terms of constant current and constant voltage. Mention the applications of each of them. 6 M
- b) Explain about Submerged Arc Welding and state its applications. 8 M

4. a) Explain the process of Induction Welding with a neat sketch. 7 M
- b) What are the factors that affect Weldability. Discuss any four factors in detail. 7 M
5. a) What is the significance of recrystallisation and grain growth in metal working. 7 M
- b) Explain the different types of rolling mills. 7 M
6. a) Sketch a deep drawing set up, labeling the various important parts and Explain it. 7 M
- b) Differentiate between Blanking and Piercing operation. How do you provide clearance between them? 7 M
7. a) Differentiate between Forward and Backward Extrusion. 7 M
- b) What is Drop forging? Explain how it is done. 7 M
8. a) Define and Explain what is polymer and classify them. 7 M
- b) Sketch and Explain Blow moulding process, equipment and its applications 7 M