

25/10/13

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B.E. (Full Time) DEGREE END SEMESTER EXAMINATIONS, NOV / DEC 2013

Common to Mechanical/Industrial

Semester 2

ME8252 MANUFACTURING TECHNOLOGY I

(Regulation 2012)

Time: 3 Hours

Answer ALL Questions

Max. Marks 100

PART-A (10 x 2 = 20 Marks)

1. State the applications of cores
2. Name the various pattern materials
3. Name any two flux materials
4. Define soldering and brazing
5. State the difference between hot working and cold working
6. What are the defects in rolling?
7. Classify the shearing operations.
8. State the applications of super plastic forming.
9. Distinguish between thermoplastics and thermosetting plastics
10. What is film blowing?

Part – B (5 x 16 = 80 marks)

11. a) With a neat sketch explain the centrifugal casting process and write its applications. (10)
b) Discuss the various casting defects. (6)
12. a) Discuss the working principle of following welding processes (8+8)
(i) Electro slag welding
(ii) Submerged arc welding
(OR)
b) (i) Describe the various welding defects. (8)
(ii) Discuss the principle and applications of plasma arc welding process with a neat sketch. (8)
13. a) (i) Differentiate between open-die forging and closed-die forging with a neat sketch. (8)
(ii) Explain the following forging operations (8)
(a) Swaging (b) Fullering
(OR)
b) (i) Differentiate between forward extrusion and backward extrusion. (8)

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- (ii) Explain the following shape rolling operations with neat sketches. (8)
(a) Tandem rolling (b) cluster rolling
14. a) (i) Describe about the formability in sheet metal process. (8)
(ii) Discuss the following sheet metal operations. (2+2+4)
(a) Shearing (b) Bending (c) Drawing
(OR)
- b) What is meant by high energy rate forming process? Explain the magnetic pulse forming with neat sketches. (16)
15. a) Explain the working principles of injection moulding process and write its applications. (16)
(OR)
- b) (i) Write short note on thermoforming with a neat sketch? (8)
(ii) What are the various steps involved in the blow moulding process? (8)