

**L 1125**

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2006.

Second Semester

Mechanical Engineering

ME 1151 -- MANUFACTURING TECHNOLOGY -- I

(Common to B.E. (PT) Regulation 2005 First Semester Mechanical Engineering)

(Regulation 2004)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A -- (10 × 2 = 20 marks)

1. State any four types of patterns.
2. Mention any two merits and demerits of die casting.
3. List out any four arc welding equipment.
4. What is the principle of resistance welding?
5. What are the four major drawbacks of hot working?
6. Classify the types of extrusion.
7. What is punching operation?
8. What is superplastic forming operation?
9. What are the characteristics of thermoplastics?
10. List out the materials for processing plastics.

PART B -- (5 × 16 = 80 marks)

11. (i) Explain the transfer moulding process. (10)  
(ii) Describe the compression moulding process. (6)
12. (a) (i) What are the pattern making allowances and briefly explain them. (8)  
(ii) Describe the centrifugal casting process. (8)

Or

- (b) (i) Briefly explain the Carbon dioxide moulding process and state two important merits and demerits. (8)  
(ii) Discuss the various defects in casting. (8)
13. (a) (i) Explain the spot welding process. (8) Time  
(ii) Describe the submerged arc welding process. (8)

Or

- (b) (i) Explain the electron beam welding process with a neat sketch. (8)  
(ii) Distinguish between soldering and brazing. (8) 1.
14. (a) (i) Classify the types of rolling mills and sketch them. (10) 2.  
(ii) List out the various forging defects. (6) 3.

Or

- (b) (i) Describe the indirect extrusion process for solid and hollow workpiece and hydrostatic extrusion process. (10) 4.  
(ii) Explain briefly the wire drawing process. (6) 5.
15. (a) (i) What is deep drawing operation? Explain with a neat sketch. (8) 6.  
(ii) Explain the metal spinning operation. (8) 7.

Or

- (b) (i) Explain the principle of magnetic pulse forming. (8) 8.  
(ii) Describe the electro hydraulic forming process. (8) 9.