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**B.E / B.Tech ( Full Time) End Semester DEGREE EXAMINATION, APRIL / MAY 2012**

Third Semester

Mechanical Engineering

28

**ME 272 – MANUFACTURING TECHNOLOGY I**

(Regulation 2004)

Time : 3 Hours

Answer ALL Questions

Max. Marks 100

**PART-A (10 x 2 = 20 Marks)**

1. State the reasons for use of loose piece pattern in foundry?
2. What is core print?
3. List any six defects in casting process.
4. What is meant by break down passes in rolling?
5. What is meant by worm forging?
6. Differentiate between coining and embossing.
7. What is high energy rate forming?
8. Why fillers are added in plastics?
9. What is meant by solid state welding?
10. List the applications of brazing.

**Part – B ( 5 x 16 = 80 marks)**

11. i) Distinguish between forward and backward extrusion. Give examples of the components produced by forward and backward extrusion process. (12)
- ii) What is cold extrusion process? How it differ from hot extrusion process? (4)
12. a) i) What are the allowances provided on the pattern for a sand casting and state the reasons, why they are provided. (12)
- ii) Why organic binders preferred in core making? (4)
- OR**
- b) Briefly enumerate the steps in sequence for producing castings from shell moulding process. List the practical applications. (16)
13. a) i) Give a line diagrams of the various pass sequences for rolling round sections. (12)
- ii) Explain the principle of rolling operations. (4)
- OR**
- b) i) Distinguish between hot rolling and cold rolling operations. (8)
- ii) With the aid of simple sketches, explain the 3-roll and cluster roll arrangements. (8)

14. a) Write a short notes on  
i) Compression moulding  
ii) Transfer moulding.

**OR**

- b) Compare the electro hydraulic and electromagnetic forming process based on principle, construction and applications. (16)

15. a) Explain the working principle of explosive welding process. List the practical applications. (16)

**OR**

- b) What are the common welding defects in welding process? State the reasons and remedies of the defects. (16)