ANNA UNIVERSITY OF TECHNOLOGY, COIMBATORE

B.E. / B.TECH. DEGREE EXAMINATIONS : NOV / DEC 2010

REGULATIONS : 2008

THIRD SEMESTER : MECHANCIAL ENGINEERING

080120005 - MANUFACTURING TECHNOLOGY I

TIME: 3 Hours Max. Marks: 100

PART - A

(20 x 2 = 40 Marks)

ANSWER ALL QUESTIONS

1. What are the different types of pattern allowances?
2. Distinguish between green and dry sand moulds.
3. Give the composition of a typical green mould sand.
4. What are the different types of furnace used for melting?
5. What are the different methods of welding?
6. Define plasma arc welding.
7. What is meant by fluxing? Why it is done?
8. Define resistance arc welding.
9. Define degree of drawing.
10. What are the common defects found in rolled parts?
11. What is draft on forgings?
12. Define rolling process.
13. What is meant by spring back in sheet metal processing?
14. What is meant by metal spinning?
15. What are the formability test methods?
16. Define peen forming process.
17. What are the different types of plastics?
18. What is blow moulding?
19. What is meant by vacuum forming?
20. What is meant by compression moulding?

PART - B

(5 x 12 = 60 Marks)

ANSWER ANY FIVE QUESTIONS

21. [a] Discuss the properties of moulding sand. (8)
    [b] List out casting defects. (4)

22. [a] With a neat sketch explain the working principle of semi-centrifugal casting. (8)
    [b] Explain ceramic mould casting. (4)

23. Explain with a neat sketch the working principle of submerged arc welding.

24. [a] Explain the various methods of brazing. (8)
    [b] What are the advantages of adhesive bonding? (4)

25. [a] With a neat sketch explain working principle of universal rolling machine and planetary rolling machine. (8)
    [b] Briefly explain the principle of wire drawing. (4)

26. What is meant by extrusion? With a neat sketch explain working principle of direct extrusion and indirect extrusion.

27. (a) With the help of diagram explain rubber hydro- form process. (8)
    (b) What are the salient features and drawbacks of metal spinning. (4)

28. With the help of a neat sketch explain the working principle of screw injection moulding machine.

*****THE END*****