



CBCS SCHEME

18AU36

Third Semester B.E. Degree Examination, June/July 2024 Manufacturing Process - I

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Classify manufacturing process and explain the factors to be considered while selecting a process for a given application. (10 Marks)
- b. Briefly describe the steps involved in making a casting. (05 Marks)
- c. List various types of patterns and explain the match plate pattern with a neat sketch. (05 Marks)

OR

- 2 a. List different types of sand moulds and discuss skin Dried Sand mould and its advantages and disadvantages. (05 Marks)
- b. What are Cores? Briefly explain their significance in sand moulding process. (10 Marks)
- c. What are various casting defects? Explain any four defects with neat sketches. (05 Marks)

Module-2

- 3 a. Explain sand slinger machine used in moulding of operation with neat sketch. (06 Marks)
- b. Explain Goose neck type hot chamber die casting process with neat sketch. (08 Marks)
- c. Explain semi centrifugal casting with neat sketch. (06 Marks)

OR

- 4 a. Explain investment moulding with neat diagrams. (10 Marks)
- b. Explain the working of Cupola furnace with neat sketch. (10 Marks)

Module-3

- 5 a. Define Welding and list out the advantages, limitations and applications. (10 Marks)
- b. Explain with neat sketches any four welding defects and their causes and remedies. (10 Marks)

OR

- 6 a. With a neat sketch, explain the oxy acetylene gas welding process and mention its advantages and disadvantages. (10 Marks)
- b. Explain Forward and Backward Welding techniques. (10 Marks)

Module-4

- 7 a. Explain with a neat sketch, the seam welding and list out its advantages and disadvantages. (10 Marks)
- b. With a neat sketch, explain Metal Inert Gas Welding and mention its advantages and disadvantages. (10 Marks)

OR

- 8 a. Explain atomic hydrogen welding with a neat sketch and mention its advantages and disadvantages. (10 Marks)
- b. With a neat sketch, explain Thermit Welding and mention its advantages and disadvantages. (10 Marks)

Module-5

- 9 a. Explain different types of soldering with neat sketch (any 3). (10 Marks)
b. Explain Radiography method of inspection with neat sketch. (10 Marks)

OR

- 10 a. Explain Liquid Penetrant Inspection method with neat sketch. (10 Marks)
b. Explain Ultrasonic Inspection method of NDT with neat sketch. (10 Marks)
