



CBCS SCHEME

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17AU36

Third Semester B.E. Degree Examination, Jan./Feb. 2021 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. What do you understand by the term Manufacturing? Explain briefly with an example. (10 Marks)
b. List the different types of Patterns and explain any two types of Patterns, with neat sketches. (10 Marks)

OR

- 2 a. With a neat sketch, explain Open riser and Blind riser. (10 Marks)
b. What are Casting defects? Explain any two. (10 Marks)

Module-2

- 3 a. With neat sketches, explain the squeeze casting process. List the advantages and limitations. (10 Marks)
b. Write a brief note on no – bake moulding operation. What are its advantages? (10 Marks)

OR

- 4 a. With neat sketches, explain the centrifugal casting process. List the advantages and limitations. (10 Marks)
b. What are different types of pit furnaces? With a sketch, explain the principle of operation of one type of pit furnace. (10 Marks)

Module-3

- 5 a. Define Welding. Give a complete classification of welding process. (10 Marks)
b. Briefly explain with a sketch, the principle of flux shielded metal arc welding (FSMAW) process. (10 Marks)

OR

- 6 a. Briefly explain the principle of Oxy – acetylene gas welding process. Explain with a simple sketch. (10 Marks)
b. Explain with a neat sketch, the TIG welding process. Mention its advantages and limitations. (10 Marks)

Module-4

- 7 a. What is the principle of Resistance welding? Mention its advantages and limitations of Resistance welding. (10 Marks)
b. With a neat sketch, explain the spot welding process. (10 Marks)

OR

- 8 a. With a neat sketch, explain the friction welding process. Mention the advantages and limitations of the process. (10 Marks)
b. Write a note on :
i) Heat affected zone in welds ii) Residual stresses in welds. (10 Marks)

1 of 2

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Module-5

- 9 a. Explain Soldering process, its advantages and limitations. (10 Marks)
b. Give a comparison of Soldering and Brazing processes. (10 Marks)

OR

- 10 a. With a neat sketch, explain the Magnetic Particle Inspection method. (10 Marks)
b. With a neat sketch, explain the Ultrasonic Inspection of Casting. (10 Marks)
