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Third Semester B.E. Degree Examination, July/August 2022 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. With neat diagram, explain the steps involved in casting process. (10 Marks)
b. What is binder? Write types of binders and explain any two type of binders with a neat sketch. (10 Marks)

OR

- 2 a. Explain the different types of cores used in manufacturing process with neat diagram. (10 Marks)
b. Explain the different casting defects, their causes and remedies. (10 Marks)

Module-2

- 3 a. Explain the Jolt type moulding machine with neat sketch. (10 Marks)
b. Write the types of moulding process and explain any two process with neat sketch. (10 Marks)

OR

- 4 a. Write short notes on : (i) Pressure die casting (ii) Squeeze casting (10 Marks)
b. With neat sketch, explain the different zones of electric arc furnace. (10 Marks)

Module-3

- 5 a. Define welding. Write the applications, advantages and disadvantages of welding. (07 Marks)
b. Explain the working of Flux Shielded Metal Arc Welding (FSMAW) with neat sketch. (08 Marks)
c. Write the welding defects and causes. (05 Marks)

OR

- 6 a. Explain the process of gas welding with example. (10 Marks)
b. Explain the working of Metal Arc Welding (MAW) with neat sketch and write the applications. (10 Marks)

Module-4

- 7 a. Write short notes on: (i) Butt welding (ii) Projection welding (08 Marks)
b. Explain the construction and working of TIG and MIG with neat sketch. (12 Marks)

OR

- 8 a. With neat diagram, explain the working of electron beam welding. (10 Marks)
b. Write short note on: (i) Seam welding (ii) Butt welding (10 Marks)

Module-5

- 9 a. Write the merits and demerits of soldering and brazing. (10 Marks)
b. Define brazing. Write the methods of brazing and explain any one with neat diagram. (10 Marks)

OR

- 10 a. With a neat sketch, explain magnetic particle inspection method. (10 Marks)
b. Write short notes on:
(i) Ultrasonic method of inspection (ii) Eddy current method of inspection (10 Marks)

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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.