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Third Semester B.E. Degree Examination, Feb./Mar.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 a flow chart describe the steps involved in casting process. (10 Marks)
b. With a neat sketch, describe any five types of pattern allowances. (10 Marks)

OR

- 2 a. Discuss the requirement of base sand. (10 Marks)
b. Describe the various types of casting defects with suitable figure. (10 Marks)

Module-2

- 3 a. With a neat sketch, explain the working of Jolt and Squeeze type moulding machines. (10 Marks)
b. Describe sweep mould, shell mould and investment mould with relevant figures. (10 Marks)

OR

- 4 a. Describe the process of squeeze casting with suitable sketch. (10 Marks)
b. Discuss with neat sketch, the construction and working of electric arc furnace with suitable figure. (10 Marks)

Module-3

- 5 a. Discuss the advantages, limitations and applications of welding. (10 Marks)
b. Describe the construction and working of metal arc welding with relevant figure. (10 Marks)

OR

- 6 a. With a neat sketch, explain the construction and working of submerged Arc welding. (10 Marks)
b. With a labeled diagram, explain the working of oxy-acetylene welding. (10 Marks)

Module-4

- 7 a. Describe the principle of operation of friction welding with labeled diagram. (10 Marks)
b. Explain the construction and working of Electron Beam Welding with suitable figure. (10 Marks)

OR

- 8 a. Describe any 4 welding defects with relevant sketch. (10 Marks)
b. Explain with neat and labeled sketch the formation of different zones during welding. (10 Marks)

Module-5

- 9 a. Explain the parameters involved in soldering and brazing. (10 Marks)
b. Explain different types of soldering. (10 Marks)

OR

- 10 a. Describe the eddy current method of inspection with relevant figure. (10 Marks)
b. Explain the Holography method of inspection with suitable figure. (10 Marks)

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