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18MT44

Fourth Semester B.E. Degree Examination, Feb./Mar. 2022

Manufacturing Technology

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. Explain the classification of Manufacturing process. (10 Marks)
- b. Define Costing Process. Explain the steps involved in Costing Process. (10 Marks)

OR

- 2 a. Explain the properties of Moulding Sand. (10 Marks)
- b. With a neat sketch, explain the Gating system. Explain all the element and their function. (10 Marks)

Module-2

- 3 a. Explain the advantages and limitations of Metal Working Process. (10 Marks)
- b. Define Forging. Explain the different methods of Forging (10 Marks)

OR

- 4 a. What is Rolling Process? Explain different types of Rolling mills with suitable diagram. (10 Marks)
- b. With a neat sketch, explain Rod drawing process. (10 Marks)

Module-3

- 5 a. Define Extrusion. With a neat sketch, explain Hydrostatic Extrusion. (10 Marks)
- b. Define Blanking and Piercing. Explain Compound die process, with a suitable diagram. (10 Marks)

OR

- 6 a. Define Welding. Explain the advantages and disadvantages of Welding process. (10 Marks)
- b. With a neat sketch, explain TIG welding. (10 Marks)

Module-4

- 7 a. Briefly explain with a neat sketch, the arrangement and working principle of Abrasive Jet Machining. (10 Marks)
- b. With a neat sketch, explain Ultrasonic Machining Process. (10 Marks)

OR

- 8 a. Explain the difference between Traditional and Non – traditional Machining. (10 Marks)
- b. With a neat sketch, explain Electric discharge machining. (10 Marks)

Module-5

- 9 a. Explain the advantages and disadvantages of NC systems. (10 Marks)
- b. Explain the steps involved in CNC Part Programming. (10 Marks)

OR

- 10 a. Explain the basic components of CNC machine tools. (10 Marks)
- b. Write a short note on : i) Turning tool geometry. (10 Marks)
- ii) Rake angle and Clearance angle for cutting tools.