

CBCS SCHEME

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15MT44

Fourth Semester B.E. Degree Examination, Dec.2018/Jan.2019

Manufacturing Technology

Time: 3 hrs.

Max. Marks: 80

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

Module-1

- 1 a. Explain the classification of manufacturing process. (04 Marks)
b. Explain briefly the basic steps involved in casting process. (06 Marks)
c. Define pattern. Explain the types of patterns. (06 Marks)

OR

- 2 a. Define core. With a neat sketch explain horizontal and vertical core. (08 Marks)
b. With a neat sketch explain gating system used in sand moulding process. (08 Marks)

Module-2

- 3 a. Define wrought product. Explain the advantages and limitations of metal working process. (08 Marks)
b. Define forging. Explain the classification of forging process. (08 Marks)

OR

- 4 a. Explain types of rolling mills with suitable diagrams. (08 Marks)
b. With a neat sketch, explain Rod Drawing Process. (08 Marks)

Module-3

- 5 a. Define extrusion. With a neat sketch explain direct and indirect extrusion. (08 Marks)
b. Define piercing and explain progressive die with suitable sketch. (08 Marks)

OR

- 6 a. With a neat sketch, explain metal arc welding process. (08 Marks)
b. With a neat sketch explain atomic hydrogen welding. (08 Marks)

Module-4

- 7 a. With a neat sketch briefly explain laser beam machining. (08 Marks)
b. Explain briefly the ultrasonic machining process. (08 Marks)

OR

- 8 a. Explain the advantages and disadvantages of non-traditional machining process. (08 Marks)
b. With a neat sketch explain abrasive water jet machining process. (08 Marks)

Module-5

- 9 a. Explain the basic components of CNC machine tools. (08 Marks)
b. Explain the advantages and disadvantages of numerical control systems. (08 Marks)

OR

- 10 a. Write short notes on:
i) Turning tool geometry
ii) Rake angle and clearance angle for cutting tools (08 Marks)
b. Explain steps involved in CNC part programming. (08 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.