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## CBCS SCHEME

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

Time: 3 hrs. Max. Marks: 100

|   | N        | ote: Answer any FIVE full questions, choosing ONE full question from each mo        | dule.        |
|---|----------|---|--------------|
|   |          |   |              |
|   |          | 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 fu |              |
|   | 0.       | ,   | (10 Marks)   |
|   |          | 0.5   |              |
|   |          | Module-2  | (10.3% 1.)   |
| 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 dis | agram.       |
|   |          |   | (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)   |
| 3 | a.<br>b. | Define Blanking and Piercing. Explain Compound die process, with a suitable die     |              |
|   | υ.       | Define Blanking and Flereing. Explain compound the process, with a suitable the     | (10 Marks)   |
|   |          |   |              |
|   |          | OR  | (10.3% 1-)   |
| 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 A      | Abrasive Jet |
|   |          | Machining.  | (10 Marks)   |
|   | b.       | With a neat sketch, explain Ultrasonic Machining Process.                           | (10 Marks)   |
|   |          |   |              |
|   |          | OR  | (10 Manlas)  |
| 8 | a.       | 1   | (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)   |
|   |          | OD  |              |
|   |          | OR  |              |

## OR

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

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.

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