

# CBCS SCHEME

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17AU46

Fourth Semester B.E. Degree Examination, Dec.2023/Jan.2024

## Manufacturing Process – II

Time: 3 hrs.

Max. Marks:100

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

### Module-1

- 1 a. Explain with a neat sketch the mechanism of chip formation. (10 Marks)  
b. Explain the factors affecting tool life in detail. (10 Marks)

OR

- 2 a. Write short notes on types of cutting fluids. (10 Marks)  
b. With a neat sketch explain the measurement of tool tip temperature. (10 Marks)

### Module-2

- 3 a. Discuss the constructional features of Turret and Capstan Lathe. Sketch the Capstan Lathe. (10 Marks)  
b. Differentiate between Capstan and Turret Lathe. (10 Marks)

OR

- 4 a. Sketch the construction and working of shaping machine. (10 Marks)  
b. Discuss the various operations on lathe. (10 Marks)

### Module-3

- 5 a. Explain the milling cutter nomenclature. With a neat sketch. (10 Marks)  
b. What is indexing in milling operation? Clearly discuss about compound and angular indexing. (10 Marks)

OR

- 6 a. Write a note on the following : i) Abrasives ii) Bonding process. (10 Marks)  
b. With a neat sketch, explain the centre less grinding machine. (10 Marks)

### Module-4

- 7 a. Describe the nomenclature of a drill bit with labeled diagram. (10 Marks)  
b. Explain the constructional features of gang drilling machine with suitable figure. (10 Marks)

OR

- 8 a. Explain the principle of broaching with relevant figure. (10 Marks)  
b. Explain the arrangement set up of lapping operation and also honing operation. (10 Marks)

### Module-5

- 9 a. With a neat sketch explain the working principle of Plasma Arch Machining (PAM) and list its applications. (10 Marks)  
b. Write short notes on principle of Electron Beam Machining (EBM). (10 Marks)

OR

- 10 a. Explain the working principle of Abrasive Jet Machining and list its advantages. (10 Marks)  
b. What is electrical discharge machining? Explain the principle of EDM with a neat sketch. (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.