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## Fourth Semester B.E. Degree Examination, June/July 2023 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. With a neat sketch explain the Nomenclature of single point cutting tool. (10 Marks)
- b. With suitable figure explain the various types of tool wear. (10 Marks)

**OR**

- 2 a. Explain in detail the properties of cutting fluids. (10 Marks)
- b. With a neat sketch discuss the heat generation in metal cutting. (10 Marks)

### Module-2

- 3 a. With relevant sketch. Explain the constructional features of Capstan and Turret Lathe. (10 Marks)
- b. Discuss in detail the Classification of Lathe. (10 Marks)

**OR**

- 4 a. Discuss with neat sketch the Construction and working shaping machine. (10 Marks)
- b. Classify the planning machine. Discuss any 2 with suitable figure. (10 Marks)

### Module-3

- 5 a. Explain the constructional features of milling machines with suitable figure. (10 Marks)
- b. Explain any 3 milling operations with relevant sketch. (10 Marks)

**OR**

- 6 a. Discuss with neat sketch the Constructional features of Centre – less grinding machine. (10 Marks)
- b. Explain in detail the Grinding process parameters. (10 Marks)

### Module-4

- 7 a. With a suitable figure, Discuss the Constructional features of Radial drilling machine. (10 Marks)
- b. With suitable figure, Explain the twist drill nomenclature. (10 Marks)

**OR**

- 8 a. Explain in detail the various methods of lapping with relevant sketch. (10 Marks)
- b. Discuss the Constructional features of honing machine with suitable figure. Also list the advantages and limitations. (10 Marks)

### Module-5

- 9 a. With suitable figure discuss the construction and working of Laser Beam Machining. (10 Marks)
- b. Discuss the construction and working of water jet machining. Also list the applications. (10 Marks)

**OR**

- 10 a. Explain the construction and working of Ultrasonic machining. List the applications of USM. (10 Marks)
- b. Explain the construction and working of Electro Chemical Machining. (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.