

# CBCS SCHEME

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18SM43

## Fourth Semester B.Tech. Degree Examination, July/August 2022 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 the difference between the Orthogonal and Oblique cutting, with neat sketches. (10 Marks)  
b. Explain the different types of chips formation during metal cutting process. (10 Marks)

OR

- 2 a. Discuss the desirable properties required for cutting Tool materials. (10 Marks)  
b. List the various types of cutting tool materials and mention the characteristics of cutting tool materials. (10 Marks)

### Module-2

- 3 a. Explain the types of Tool wear, with neat sketches. (10 Marks)  
b. Describe the various parameters affect the tool life. (10 Marks)

OR

- 4 a. Explain the functions and properties of cutting fluids. (10 Marks)  
b. Discuss the various factors to be considered for selection of cutting fluid. (10 Marks)

### Module-3

- 5 a. Explain the working principle of Metal arc welding with neat sketch. (10 Marks)  
b. With neat sketch, explain the working of submerged arc welding and mention its applications. (10 Marks)

OR

- 6 a. Define the Non – Destructive Testing. Explain the magnetic particle inspection with neat sketch. (10 Marks)  
b. With neat sketch, explain Ultrasonic Inspection method. (10 Marks)

### Module-4

- 7 a. Classify the metal forming process and differentiate the hot and cold work metal forming processes. (10 Marks)  
b. With neat sketch, explain the Smith Forging process and mention its advantages. (10 Marks)

OR

- 8 a. Classify the Tube Drawing and explain the Tube drawing without mandrel with neat sketch. (10 Marks)  
b. Describe the Direct and Indirect Extrusion process, with neat sketches. (10 Marks)

### Module-5

- 9 a. List the various sheet metal operations. Explain the Sheet Metal Blanking and Punching operation with neat sketches. (10 Marks)  
b. Describe the Deep Drawing process with neat sketch. (10 Marks)

OR

- 10 a. Define the Polymerization. Explain Injection Moulding Process (10 Marks)  
b. With neat sketch, explain the Blow Moulding Process. (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.