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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)