



CBCS SCHEME

18AU45

Fourth Semester B.E. Degree Examination, Jan./Feb. 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. Draw a neat sketch of a single point cutting tool nomenclature. Explain briefly. (10 Marks)
b. Draw a Merchant's circle diagram and write the expression of different forces. (10 Marks)

OR

- 2 a. List and explain the desired properties of cutting tool materials. (10 Marks)
b. What are the factors affecting the tool life. Explain briefly. (10 Marks)

Module-2

- 3 a. Explain with neat sketch capstan and turret lathe. (10 Marks)
b. What are the operations performed on a lathe machine. Explain any four operations with a neat sketch. (10 Marks)

OR

- 4 a. Sketch and explain principle parts of horizontal shaper machine. (10 Marks)
b. Differentiate between shaper and planer. (10 Marks)

Module-3

- 5 a. With a neat sketch, explain the constructional features of horizontal milling machine. (10 Marks)
b. Draw a neat sketch of up milling and down milling. Explain. (10 Marks)

OR

- 6 a. Explain with a neat diagram, constructional feature of centreless cylindrical and surface grinding. (10 Marks)
b. What factors are considered for selection of grinding wheel? Explain. (10 Marks)

Module-4

- 7 a. Define drilling. Give complete classification of drilling machine. (10 Marks)
b. Explain with a neat sketch, working principle of radial drilling machine. (10 Marks)

OR

- 8 a. What are the advantages and disadvantages and application of broaching machine? (10 Marks)
b. Explain with a neat sketch lapping and honing process. (10 Marks)

Module-5

- 9 a. State reasons for requirements of nontraditional machining. (10 Marks)
b. Explain with a neat sketch, the Ultra-Sonic Machining (USM). (10 Marks)

OR

- 10 a. Explain with a neat sketch, water jet machining. (10 Marks)
b. State the advantages and disadvantages of EDM and PAM process. (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.