

CBCS SCHEME

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Third Semester B.E. Degree Examination, Dec.2023/Jan.2024 Manufacturing Process

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. Briefly explain the steps involved in metal casting process with a simple sketches. (10 Marks)
b. List out the type of patterns and explain any 4 types of pattern with sketches. (10 Marks)

OR

- 2 a. List different types of sand moulding and discuss any one type moulding and its advantages. (10 Marks)
b. What are cores? Briefly explain their significance in sand moulding process. (10 Marks)

Module-2

- 3 a. Describe the pressure die casting technique with appropriate sketches. (10 Marks)
b. With neat sketch, describe the investment casting. (10 Marks)

OR

- 4 a. Explain the constructional features, working of cupola furnace with a suitable sketch. (10 Marks)
b. List the different types of casting defects and explain any four defects. (10 Marks)

Module-3

- 5 a. Define welding and list out its advantages, limitations and applications. (10 Marks)
b. With a neat sketch, explain oxyacetylene welding process. (10 Marks)

OR

- 6 a. List out the difference between forwards and backward welding process. (10 Marks)
b. What is TIG (Tungsten Inert Gas) welding? Explain working of TIG. (10 Marks)

Module-4

- 7 a. With neat sketches, describe various types of forging process. (10 Marks)
b. Briefly explain the elastic, plastic deformation and strain hardening. (10 Marks)

OR

- 8 a. List out the different press working process. Explain any two processes. (10 Marks)
b. With a neat sketch, explain different types of rolling mill arrangement. (10 Marks)

Module-5

- 9 a. Draw a neat sketch of a single point cutting tool nomenclature. Explain briefly. (10 Marks)
b. List and explain any four types of cutting tool materials. (10 Marks)

OR

- 10 a. Explain with a neat sketch, capstan and turret lathe. (10 Marks)
b. Sketch and explain the principle parts of horizontal shaper machine. (10 Marks)

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