

CBCS SCHEME

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Third Semester B.E. Degree Examination, Jan./Feb. 2023 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. With a neat sketch explain the different steps involved in casting. (10 Marks)
b. Briefly explain the types of allowances given to a pattern. (10 Marks)

OR

- 2 a. With a neat sketch explain jolting machine. (10 Marks)
b. With a neat sketch explain the concept of gating and risering. (10 Marks)

Module-2

- 3 a. Elaborate with a neat sketch hot chamber die casting process. (10 Marks)
b. With a neat sketch explain direct electric arc furnace. (10 Marks)

OR

- 4 a. Elaborate with a neat sketch the working principle of a shell moulding. (10 Marks)
b. With a neat sketch explain the constructional features of a cupola furnace. (10 Marks)

Module-3

- 5 a. With a neat sketch explain seam welding process. (10 Marks)
b. Elaborate with a neat sketch the working principle of a electron beam welding process. (10 Marks)

OR

- 6 a. With a neat sketch explain sub merged arc welding process. (10 Marks)
b. With a neat sketch explain the working principle of a Laser beam welding. (10 Marks)

Module-4

- 7 a. Briefly explain with a neat sketch the working principle of a board drop hammer. (10 Marks)
b. With a neat sketch explain the working principle of a planetary rolling mill. (10 Marks)

OR

- 8 a. With a neat sketch explain open die and closed die forging. (10 Marks)
b. With a neat sketch explain tandem rolling mill. (10 Marks)

Module-5

- 9 a. With a neat sketch explain single point cutting tool geometry. (10 Marks)
b. With a neat sketch explain horizontal milling machine. (10 Marks)

OR

- 10 a. Briefly explain the constructional features of a cylindrical grinding machine. (10 Marks)
b. Briefly explain the following cutting tool materials. (10 Marks)
i) CBN ii) Carbides.

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.