

# CBCS SCHEME

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## Third Semester B.E. Degree Examination, June/July 2023 Manufacturing Processes

Time: 3 hrs.

Max. Marks: 100

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

### Module-1

- 1 a. Explain various pattern allowances provided in casting. (10 Marks)  
b. List various patterns and explain split and sweep pattern. (10 Marks)

OR

- 2 a. What are the different types of cores used in casting process? Sketch and explain any four cores. (10 Marks)  
b. Explain with a neat sketch the Sand Slinger. (10 Marks)

### Module-2

- 3 a. Sketch and explain vertical centrifugal casting. (10 Marks)  
b. Sketch and explain high pressure die casting. (10 Marks)

OR

- 4 a. Sketch and explain the construction and working of cupola furnace with different zones. (10 Marks)  
b. With a neat sketch, explain the different zone of a electric arc furnace. (10 Marks)

### Module-3

- 5 a. Sketch and explain TIG Welding, also mention its advantages. (10 Marks)  
b. With a neat sketch, explain the "Oxy-Acetylene" gas welding process and mention its advantages and disadvantages. (10 Marks)

OR

- 6 a. Define soldering and explain soldering iron method with a neat sketch. (10 Marks)  
b. What is Brazing? What are different brazing methods and explain Torch Brazing with a sketch. (10 Marks)

### Module-4

- 7 a. What is Forging? Explain Hot and cold Forging. (10 Marks)  
b. Explain Strain Hardening, Elastic and Plastic deformation. (10 Marks)

OR

- 8 a. Sketch and explain, (i) Blanking (ii) Notching (iii) Lancing (iv) Piercing (v) Embossing (10 Marks)  
b. List different types of rolling operations and explain any two. (10 Marks)

### Module-5

- 9 a. Briefly explain the elements of single point cutting tool with a neat sketch. (10 Marks)  
b. Explain with a neat sketch the main parts of the lathe. (10 Marks)

OR

- 10 a. Sketch and explain shaping machine. (10 Marks)  
b. Sketch and explain grinding machine. (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.