

B037414(037)

**B. Tech. (Fourth Semester) Examination,
April-May 2021**

(AICTE Scheme)

(Mechanical Engg. Branch)

MANUFACTURING PROCESS

Time Allowed : Three hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : Attempt all questions. Part (a) of each question is compulsory and carries 4 marks. Solve any two parts from part (b), (c) & (d) and carries 8 marks each.

Unit-I

1. (a) What is core and core print?

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- (b) What is Pattern? Discuss the various types of pattern allowances. 8
- (c) Explain various types of casting defects. 8
- (d) Explain continuous casting and centrifugal casting with neat sketch. 8

Unit-II

- 2. (a) Write classification of welding process. 4
- (b) Explain with diagram atomic hydrogen welding. 8
- (c) Explain the principle and working of submerged arc welding (SAW) process. 8
- (d) Describe the principle and working of oxyacetylene gas welding process. 8

Unit-III

- 3. (a) Explain principle of resistance welding. 4
- (b) Explain the principle and working of spot, seam and projection welding. 8

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- (c) Distinguish between welding, soldering and brazing. 8
- (d) Describe the principle and working of thermit welding process. 8

Unit-IV

- 4. (a) Give specification of Lathe. 4
- (b) Explain the various types of operations performed on a lathe. 8
- (c) Describe the quick return mechanism of a shaper machine. 8
- (d) Explain the difference between shaper and planner. 8

Unit-V

- 5. (a) Differentiate between drilling, boring and reaming. 4
- (b) What is a Milling Machine? Give the classification and explain up milling and down milling. 8
- (c) What is Broaching? State its advantages, limitations and applications. 8
- (d) Explain the process of indexing in milling machine. 8