

C 037612(037)

B. Tech. (Sixth Semester) Examination, April-May 2022

(AICTE Scheme)

(Mechanical Engg. Branch)

MANUFACTURING TECHNOLOGY

Time Allowed : Three hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : Attempt all questions. Part (a) is compulsory of each question and carries 4 marks each. Attempt any two parts out of part (b), (c) and (d) of each question carry 8 marks each. Assume any data ~~Unit-I~~ required.

1. (a) Enlist different type of surface finishing operation with its significance.
- (b) Discuss the process of centreless grinding with the help of suitable diagram.

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- (c) Discuss the effect of various grinding parameters on grinding wheel performance.
- (d) Write short notes on the following :
- (i) Specification of grinding wheel
 - (ii) Honing and lapping operation

Unit-II

2. (a) Write advantages and applications of unconventional machining.
- (b) Briefly explain the electron beam machining and laser beam machining processes giving their diagrams.
- (c) What is electro-discharge machining process? Explain it details with its process parameters and surface quality obtained.
- (d) Explain working of ultrasonic machining with its application.

Unit-III

3. (a) Differentiate between hot rolling and cold rolling.
- (b) Explain the principle of forging operation with its advantages.

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- (c) Explain different type of tools and fixtures used in forging.
- (d) Explain the cold extrusion process with its defects.

Unit-IV

4. (a) What are the defects find in rolled products?
- (b) What are different types of rolling mills? Explain them with its diagram.
- (c) Explain the principle of wire drawing and tube drawing process with suitable diagram.
- (d) What do you mean by thread rolling? Discuss with its advantages and disadvantages.

Unit-V

5. (a) What are factors consider while selection of press?
- (b) What are differnt types of press working operation? Explain any one of them.
- (c) Write short notes on :
- (i) Piercing
 - (ii) Shaving
 - (iii) Notching

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(d) Explain punch and die size calculation in press working.