



C20-M-406

7459

BOARD DIPLOMA EXAMINATION, (C-20)
OCTOBER/NOVEMBER—2024
DME – FOURTH SEMESTER EXAMINATION
PRODUCTION TECHNOLOGY—II

Time : 3 Hours]

[Total Marks : 80

PART—A

3×10=30

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. List any six types of milling machines.
2. What are the various types of work holding devices used in milling?
3. List the various methods of gear making.
4. List any three methods of heat treatment of gears.
5. List the various types of abrasives.
6. State the advantages and limitations of grinding.
7. Differentiate between jigs and fixtures.
8. State the working principle of a jig boring machine.
9. Write the classification of modern machining process.
10. State the applications of ultrasonic machining.

PART—B

8×5=40

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **eight** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

- 11.** Draw a line diagram of a horizontal milling machine and explain the functions of its parts.

(OR)

What is indexing and explain compound indexing?

- 12.** Explain the methods of heat treatment of gears.

(OR)

Explain gear cutting by rack cutter with the help of a neat sketch.

- 13.** Explain various parts of cylindrical grinding machine with a neat sketch.

(OR)

List the methods of hot dipping and explain any two of them in detail.

- 14.** Draw a line diagram of open front jig boring machine and label its parts and explain its working.

(OR)

Explain various hole location methods with a neat sketch.

- 15.** Explain abrasive jet machining. State its advantages and limitations.

(OR)

Explain EDM with a neat sketch. State its advantages and limitations.

PART—C

10×1=10

- Instructions :** (1) Answer the following question.
(2) The question carries **ten** marks.
(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

- 16.** Explain the operation and construction details of gear hobbing machine with neat sketch. Write why gear hobbing is efficient process of manufacturing gears?

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