

C20-M-406

7459

BOARD DIPLOMA EXAMINATION, (C-20)

JUNE/JULY—2022

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) Answer should be brief and straight to the point and shall not exceed five simple sentences.

1. List out various milling machines.
2. Write the specifications of a milling cutter.
3. List various methods of gear manufacturing.
4. Write the various gear finishing operations.
5. State the working principle of grinding operation.
6. What are the purpose of grinding?
7. Differentiate between jigs and fixtures.
8. State the principle of working of a jig boring machine.
9. List the equipment used in USM process.
10. Explain the principle o f working of Electric Discharge Machining.

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PART—B

8×5=40

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

- 11.** (a) Explain the following milling operations with simple sketches :
(i) Slab milling (ii) Face milling (iii) End milling
(iv) Angular milling

(OR)

- (b) What are the various types of milling cutters used? State the functions of each cutter.

- 12.** (a) Describe with a neat sketch gear shaping process using pinion cutter.

(OR)

- (b) Describe gear cutting by using form cutter with the help of sketch.

- 13.** (a) What are various methods of grinding? Explain with a neat sketch the principle of centreless grinding.

(OR)

- (b) Describe the process of super finishing and write its advantages and limitations.

- 14.** (a) Explain the constructional details and function of open-front jig boring machine with the help of legible sketch.

(OR)

- (b) Explain the constructional details and function of cross-rail jig boring type machine with the help of legible sketch.

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15. (a) Distinguish between non-conventional machine and traditional machining methods.

(OR)

- (b) Explain the principle of working of ultrasonic machining.

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. Compare the different indexing methods in milling machine.

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