

C20-M-406

7459

BOARD DIPLOMA EXAMINATION, (C-20)
NOVEMBER/DECEMBER—2022
DME – FOURTH SEMESTER EXAMINATION
PRODUCTION TECHNOLOGY-II

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

- Instructions :** (1) Answer any **five** 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. Briefly explain gang milling.
2. Write the uses of end milling cutter.
3. What are the advantages of gears made of plastic materials?
4. State the difference between gear forming and gear generating.
5. Differentiate between lapping and honing.
6. Give the details grinding wheel with the following marking :
W-C-54-M-3-2-17
7. State the specific features of jig boring machine.
8. Define Jig and Fixture.
9. What are the steps involved in chemical milling?
10. State the advantages and limitations of modern machining process.

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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 criteria for valuation are the content but not the length of the answer.

11. (a) What is Indexing? Find index to mill a gear having 83 divisions.

(OR)

(b) Explain the Vertical milling machine with a neat sketch and explain the functions of its parts.

12. (a) Explain the common methods of checking gear teeth.

(OR)

(b) Explain the operation of gear grinding with the help of a neat sketch.

13. (a) Explain the Grit, Grade and Structure of wheels.

(OR)

(b) Explain tool and cutter grinding machine.

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14. (a) Explain the following fixtures :

- (i) Milling fixture
- (ii) Boring fixtures
- (iii) Grinding fixture
- (iv) Welding fixture

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(OR)

(b) Explain the constructional details and function of Cross-rail Jig boring type machine with the help of a neat sketch.

15. (a) Explain the principle of working of Chemical milling machine.

(OR)

(b) State the advantages, limitations and application of the L.B.M.

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 differences between gear shaping and gear hobbing.

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