

7261

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

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 lathe machines.
2. Write any three specifications of an engine lathe.
3. Write the significance of "quick return mechanism" in shaper.
4. List any three operations performed on slotter.
5. List any three advantages of broaching.
6. List out any three tool holding devices.
7. List any three factors to be considered for selecting cutting fluid for a machining operation.
8. How do you specify a shaper?
9. Write the principle of TIG welding.
10. What are the advantages and limitations of Welding?

PART—B

8×5=40

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- 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. (a) Describe, with a legible sketch, working of an engine lathe.

(OR)

(b) Explain any four operations performed on engine lathe.

12. (a) Illustrate the constructional details of planer with legible sketch.

(OR)

(b) Illustrate the "quick return mechanism" used in planer with legible sketch.

13. (a) Describe, with legible sketch, the working principle of a pull down type broaching machine.

(OR)

(b) Describe, with legible sketch, the working principle of a vertical broaching machine.

14. (a) Explain, with diagram, oxy-acetylene welding process.

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(OR)

(b) Describe, with legible sketch, each component of gas welding equipment.

15. (a) Illustrate the process of ultrasonic welding with legible sketch.

(OR)

(b) Illustrate the process of gas cutting with legible sketch.

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PART—C

10×1=10

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- 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. Draw the nomenclature of single point cutting tool and explain the significance of various angles in it.

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