

6245

BOARD DIPLOMA EXAMINATION, (C-16)

OCTOBER/NOVEMBER—2023

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. State the working principle of lathe.
2. List out the different work holding devices used in engine lathe.
3. What are the differences between automatic and semi-automatic lathes?
4. Mention three types of quick return mechanisms used in a slotter.
5. State the main differences between shaper and slotter.
- * 6. Write any three factors to be considered while selecting the cutting fluids.
7. Define pressure welding and fusion welding.
8. Write any three advantages of welding.
9. List out the different instruments used for linear and angular measurements.
10. What is a comparator? State its uses.

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PART—B

10×5=50

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

11. List out the different methods of taper turning and explain taper turning by the compound rest method with a neat sketch.
12. Draw a line diagram of capstan lathe and describe the function of its main parts.
13. Explain the principle of Whitworth quick return mechanism of shaper.
14. Write a short note on horizontal continuous broaching machine with a line diagram.
15. What are the different types of lubricant? Give examples of each.
16. Explain the principle of ultrasonic welding with a neat sketch. State its advantages.
17. Explain the procedure for submerged arc welding with a neat sketch. State its advantages.
- * 18. Describe the working principle of optical comparator with a neat sketch.

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