



C16-M-304

6245

BOARD DIPLOMA EXAMINATION, (C-16)

AUGUST/SEPTEMBER—2021

DME - THIRD SEMESTER EXAMINATION

PRODUCTION TECHNOLOGY - I

Time : 3 hours ]

[ Total Marks : 80

**PART—A**

- 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. How is the size of engine lathe specified? 3
2. What are the lathe accessories used in engine lathe?  $\frac{1}{2} \times 6 = 3$
3. State the need of a copying lathe. 3
4. How does a slotter differ from a shaper? 3
5. List out any six work holding devices used in planer.  $\frac{1}{2} \times 6 = 3$
6. How does cutting fluid improve the tool life? 3
7. State the difference between straight and reverse polarity. 3
- \* 8. What are the functions of flux used in soldering? 3
9. Write the applications of autocollimator. 3
10. List out the mechanical comparators. 3

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## PART—B

- 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. Draw a line diagram of engine lathe and describe functions of main parts. 5+5
12. Explain common tool holding and work holding devices on turret lathe. 5+5
13. Explain the principle of whitworth quick return mechanism of shaper with a neat sketch. 5+5
14. Draw a neat sketch of horizontal broaching machine and explain its working. 5+5
15. Explain the methods of application of cutting fluids. 10
16. Describe briefly working principle of ultrasonic welding with a neat sketch. State its advantages and limitations. 3+3+2+2
17. Explain the principle of arc welding with a neat sketch. List out different equipments and accessories used in arc welding. 3+3+2+2
18. Draw a neat sketch of interferometer and explain its working. 5+5

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