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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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[Contd...

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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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