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C16-M-304

**6245**

**BOARD DIPLOMA EXAMINATION, (C-16)**

**JUNE/JULY—2022**

**DME - THIRD SEMESTER EXAMINATION**

**PRODUCTION TECHNOLOGY - I**

*Time : 3 hours ]*

*[ Total Marks : 80*

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**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. How the size of an engine lathe is specified?
2. List out different work holding devices used in lathe.
3. Write any three differences between engine lathe and turret lathe.
4. List out various quick return mechanisms used in a shaper.
- \* 5. State the working principle of slotter.
6. State any six properties of cutting fluids.
7. Write any three advantages and limitations of welding.
8. State any three differences between soldering and brazing.
9. What is a comparator and state its uses?
10. State the working principle of an optical flat.

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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 neat diagram of engine lathe and describe the functions of main parts. 5+5
12. Write short notes on semi-automatic lathe and automatic lathe. 5+5
13. Draw a neat sketch of standard double-housing planer and explain its main parts. 5+5
14. Draw a neat sketch of vertical broaching machine and explain its working. 5+5
15. Mention any three purposes of lubricants. Explain the different types of lubricants. 3+7
16. Explain the principle of gas welding with a neat sketch and list out different equipments and accessories used in gas welding. 3+3+4
17. With a neat diagram explain the procedure of submerged arc welding, stating its advantages and limitations. 3+3+2+2
- \* 18. Explain the principle of operation of interferometer with the aid of a diagram. 5+5

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