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C20-M-306

**7261**

**BOARD DIPLOMA EXAMINATION, (C-20)  
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. List any six types of lathe machines.
2. List out any three work holding devices on lathe.
3. How does cutting fluids improve the tool life?
4. State the main difference of planer from shaper.
5. Write the importance of quick return mechanism in shaper.
6. Write any three specifications of lathe machine.
7. Draw the diagram of jet method.
8. List any three properties of cutting fluids.
9. Sketch an oxyacetylene flame and identify the various zones.
10. What is brazing?

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[ Contd...

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**PART—B**

8×5=40

- 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) Explain with diagram the four parts in single point cutting tool.

**(OR)**

(b) Explain with diagram the taper turning by the compound rest method.

12. (a) Explain with legible sketch, the working of the tail stock.

**(OR)**

(b) Write any four difference between three jaw chuck and four jaw chuck.

13. (a) Explain with line diagram the rotary table continuous broaching machine.

**(OR)**

(b) Write the four advantages and four limitations of broaching machine.

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14. (a) Explain with legible sketch the working principle of gas welding.

**(OR)**

(b) Explain with sketch the principle of ultrasonic welding.

15. (a) Describe with sketch the procedure for submerged arc welding.

**(OR)**

(b) Explain with diagram the working principle of MIG welding.

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**PART—C**

10×1=10

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

- 16.** Draw the diagram of quick return motion is affected due to the difference in volume of oil at both ends in shaper.

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