C16–M–**304**

6245

BOARD DIPLOMA EXAMINATION, (C–16)

OCT/NOV—2018

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. List out any six types of lathes.

2. State the differences between 4-jaw chuck and 3-jaw chuck.

3. Write the differences between automatic lathe and semiautomatic lathe.

4. Write any three advantages of hydraulic shaper.

5. List out any six work-holding devices used in planer.

6. Mention any three purposes of lubricants.

7. List the equipment necessary for gas welding.

8. State the principle of brazing.

9. List out different instruments used for linear and angular measurements.

10. Write the applications of autocollimator.

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PART—B 10×5=50

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Instructions : (1) Answer *any* **five** questions.

             (2) Each question carries **ten** marks.

             (3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. List different methods of taper turning and explain taper turning by the compound rest method with a neat sketch.

             2+4+4=10

12. Draw a neat sketch of turret lathe and explain its working.

             5+5=10

13. Explain with a neat sketch, the crank and slotted lever mechanism used in a shaper.   5+5=10

14. Draw a neat sketch of horizontal broaching machine and explain its working.   5+5=10

15. Write any four functions of cutting fluids. Explain different methods of application of cutting fluids.   4+6=10

16. *(a)* Explain with a neat sketch, the working principle of arc welding.   5

     (b) Explain the left-ward gas welding technique with a neat sketch.   5

17. Explain the principle of ultrasonic welding with a neat sketch. State its advantages and applications.   3+3+2+2=10

18. Describe the working principle of optical comparator with a neat sketch.   5+5=10

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