



C09-M-306

3250

**BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—2016
DME—THIRD SEMESTER EXAMINATION**

MANUFACTURING 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. State the classification of lathes. 3
2. Write the functions of lathe. 3
3. What is the difference between live-centre and dead-centre? 1½+1½
4. State the main difference between shaper and planer. 3
5. Categorise the broaching machines. 3
6. State the purpose of lubricants. 3
7. Write any three advantages of welding. 3

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8. State the ^{*}principle of arc-welding. 3
9. List out different instruments used for linear measurements. 3
10. What is comparator? State its applications. 2+1

PART—B

10×5=50

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. Draw the line diagram of engine lathe and describe the functions of main parts. 5+5
12. List out different methods of taper-turning and explain taper turning by the compound rest method. 2+4+4
13. (a) State the advantages of automatic lathes. 4
(b) Explain the working principle of shaper with a neat sketch. 3+3
14. Explain the principle of Whitworth quick return mechanism of a shaper with a neat sketch. 5+5
15. (a) Draw the line diagram of vertical broaching machine and label the parts. 5
(b) Explain the properties of lubricants. 5
16. Explain TIG welding in detail with a neat sketch. 5+5
17. What are the defects in welding? Explain any four of them. 2+(2×4)
18. Explain the construction and working of dial indicator with a sketch. 5+5
