



C16-M-304

6245

BOARD DIPLOMA EXAMINATION, (C-16)
MARCH/APRIL—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. State the working principle of lathe.
2. Write the functions of back rake and side rake angles.
3. State the need of a copying lathe.
4. How do you specify a shaper?
5. Name the work-holding devices of planer.
6. State the classifications of lubricants.
7. State the differences between pressure welding and fusion welding.
8. Differentiate between left-ward and right-ward welding techniques.

9. Classify ^{*}measuring instruments with examples.
10. Name various types of comparators.

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. With the help of a line diagram, describe the functions of main parts of a lathe machine. 5+5
12. Write the differences between capstan lathe and turret lathe.
13. With a neat sketch, explain the withworth quick return mechanism of shaper. 5+5
14. State the advantages and limitations of broaching machines. 5+5
15. Explain different methods of applying cutting fluids in machining processes.
- ^{*} 16. Write the differences between TIG welding and MIG welding.
17. With a neat sketch, explain the ultrasonic welding process. 5+5
18. With a neat sketch, explain the working principle of a sigma mechanical comparator. 5+5
