



C09-M-306

3250

**BOARD DIPLOMA EXAMINATION, (C-09)
SEPTEMBER/OCTOBER - 2020
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. Write the specifications of the lathe machine.
2. List out any six workholding devices of lathe machine.
3. Differentiate between semiautomatic lathe and automatic lathe.
4. State the working principle of slotter.
5. State the purpose of cutting fluids.
6. Write short note on brazing.
7. List out various defects in welding process.
8. State the applications of the broaching.

- * 9. List out the measuring devices used in angular measurement and surface measurement.
10. State the principle of dial test indicator and mention its uses.

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. Explain any five operations that can be done on lathe.
12. With a neat sketch, explain the working of capstan lathe.
13. (a) Explain the working principle of planner with sketch.
(b) Write the specifications of a lathe.
14. Explain the principle and working of Whitworth quick return mechanism of shaper.
15. (a) Illustrate the working of broaching.
(b) State the properties of coolants.
16. Explain the principle and working of the ultrasonic welding machine with the help of neat sketch and write its advantages and disadvantages.
17. Distinguish the following :
- (a) Pressure welding vs. Fusion welding
(b) Arc welding vs. Gas welding
(c) Soldering vs. Brazing
- * 18. List out the comparators and explain the principle and operation of the pneumatic comparator with the help of neat sketch.
