



C09-M-306

3250

BOARD DIPLOMA EXAMINATION, (C-09)

MARCH/APRIL—2018

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. List out the tool holding devices used in lathe machine.
2. List out any six types of lathes.
3. List out at least six work holding devices used on lathe machine.
4. Mention any three operations performed by the shaper.
5. What are the applications of broaching?
6. What are the advantages of semisolid lubricants?
7. List any three advantages of gas metal arc welding.

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8. Write the principle of atomic hydrogen arc welding.
9. What are the advantages of interferometers?
10. List the different methods of measuring surface roughness.

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 a neat sketch of turret lathe and label all the parts and explain its working.
12. State the features of automatic lathes.
13. Explain the quick return mechanism of a planner table with a line diagram.
14. Explain the principle of flame cutting and state its advantages and disadvantages.
15. Describe in detail about arc welding equipment.
16. Explain the principle and working of optical comparator with a line diagram.
17. (a) Find the angle at which the compound rest should be set to turn a taper 1:8 on a workpiece.
(b) Describe the working principle of the following :
(i) Shaper
(ii) Slotter
18. (a) Draw a neat sketch of vertical broaching machine and label the parts.
(b) Discuss the properties of cutting fluids.
