C09–M–**306**

3250

BOARD DIPLOMA EXAMINATION, (C–09)
MARCH/APRIL—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 working principle of lathe.

2. List out different work holding devices used in lathe.

3. What is the difference between automatic and semi-automatic lathes?

4. State the main differences between shaper and planar.

5. Write any three advantages of broaching machine.

6. Write any three factors to be considered while selecting the cutting fluids.

7. List any six accessories used in arc welding.

8. What are the functions of flux used in soldering?

9. What is comparator? State its uses.

10. Differentiate between precision and non-precision measuring instruments.

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 capstan lathe and describe the functions of main parts.

12. List out different methods of tapper turning and explain tapper turning by compound rest method.

13. *(a)* Write any five advantages of capstan lathe.

      (b) Explain the working principle of planer with neat sketch.

14. Draw a line diagram of a shaper. Label and explain the parts.

15. *(a)* Draw a line diagram of vertical broaching machine and mention the parts of it.

      (b) Explain any five properties of lubricants.

16. Explain the principle of gas welding with a neat sketch and list out different equipments and accessories used in gas welding.

17. With the aid of neat sketch, explain submerged arc welding and mention two advantages and limitations of it.

18. With the aid of neat sketch, explain optical comparator.

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