



C09-M-306

3250

BOARD DIPLOMA EXAMINATION, (C-09)

OCT/NOV—2017

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. Define turning and facing operations. 1½+1½=3

2. What is the difference between single-point and multipoint cutting tool? 3

3. State the lathe accessories used in engine lathe. 3

4. Mention any six work holding devices in planner. ½×6=3

5. What is Broach? 3

6. How does cutting fluid improve the tool life? 3

7. State the functions of flux in soldering. 3

8. What is meant by brazing? 3
9. List out the most commonly used dimensional measurements. 3
10. Write the principle of sine-bar. 3

**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 the nomenclature of a single-point cutting tool with a neat sketch. 5+5
12. Describe the function of a lathe tail-stock with a neat sketch. 5+5
13. (a) Write a short note on Collets. 5  
(b) Draw a line diagram of slotter and indicate its main parts. 5
14. Explain the working principle of crank and slotted lever mechanism employed for sharper with a neat sketch. 5+5
15. (a) Sketch an internal pull broach and show various elements on it. 5  
(b) Explain the properties of cutting fluids. 5
16. Explain the differences between welding, brazing and soldering. 10
17. Explain leftward and rightward gas welding techniques with neat sketches. 5+5
18. Explain the working principle of an optical flat with a neat sketch. 5+5

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