



C09-M-306

**3250**

**BOARD DIPLOMA EXAMINATION, (C-09)  
OCT/NOV—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 three different methods of taper turning.
2. Give any three differences between turret lathe and centre lathe.
3. What is knurling and what is its purpose? 2+1=3
4. Write any six advantages of broaching.
5. State the main differences between shaper and planer.
6. Write any three factors to be considered while selecting the cutting fluids.
7. What are the limitations of gas welding?
8. List any six accessories used in arc welding.
9. List out the mechanical comparators.
10. List different methods of measuring surface roughness.

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**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 line diagram of capstan lathe and describe the functions of main parts. 5+5=10
- 12.** Write short notes on the following : 3+4+3=10  
(a) Steady rest  
(b) Tail stock  
(c) Three jaw chuck
- 13.** Explain the principle of Whitworth quick return mechanism of shaper with a neat sketch. 5+5=10
- 14.** Describe briefly the submerged arc welding and state its advantages and limitations. 6+2+2=10
- 15.** List out various defects caused in welding and explain any four of them. 2+2×4=10
- 16.** (a) With the aid of neat sketches, explain the following operations : 2½+2½=5  
(i) Facing  
(ii) Centering  
(b) Draw a line diagram of slotter and indicate its main parts on it. 5
- 17.** (a) Draw a line diagram of vertical broaching machine and mention parts on it. 5  
(b) Discuss the properties of cutting fluids. 5
- 18.** Explain the working of profilometer with a neat sketch. 5+5=10

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