



C14-M-306

4254

BOARD DIPLOMA EXAMINATION, (C-14)  
OCT/NOV—2017  
DME—THIRD SEMESTER EXAMINATION

PRODUCTION 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. What is Knurling? Mention its purpose. 1½+1½=3
2. Briefly explain tool signature of single-point cutting tool. 3
3. Write any three differences between capstan and turret lathes. 3
4. Briefly explain working principle of slotter. 3
5. List out any six work holding devices used in Planing Machine. 3
6. Write three types of quick return mechanisms of shaper. 3
7. Mention any three purpose of lubricants. 3

/4254

1

[ Contd...

[www.ManaResults.co.in](http://www.ManaResults.co.in)

8. Write three <sup>\*</sup> advantages and three disadvantages of welding. 3
9. Mention three types of non-destructive tests used for detection of welding defects. 3
10. Briefly explain principle of gas welding. 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. List out different Lathe Operations and explain any two operations with a neat sketches. 5+5=10
12. Explain Swiss type automatic screw machine with neat sketch. 5+5=10
13. Draw a neat sketch of standard double housing planer and briefly explain main components. 6+4=10
14. Draw a line diagram of a shaper, label and explain the parts. 4+2+4=10
15. (a) Draw a neat sketch of internal pull broach. 4
- (b) Explain any three broaching operations with neat sketches. 6
16. Discuss the properties of cutting fluids. 10
17. Explain MIG welding with neat sketch and write one advantage, one disadvantage one application. 7+3=10
18. Explain ultrasonic welding with neat sketch and write four advantages, one disadvantage. 7+2+1=10

★ ★ ★