



C14-M-306

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BOARD DIPLOMA EXAMINATION, (C-14)  
OCT/NOV—2016  
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) Answer should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Differentiate between live centre and dead centre. 3
2. List out any six different work-holding devices for centre lathe.  $\frac{1}{2} \times 6 = 3$
3. State the applications of copying lathe. 3
4. Briefly explain the working principle of slotter. 3
5. State the function of clapper box in shaping machine. 3
6. Write different types of table-driven mechanisms used in planer. 3
7. State the purpose of cutting fluids. 3
8. Write any three differences between pressure welding and fusion welding. 3

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9. Briefly explain the principle of flame cutting. 3
10. List out any six defects in welds.  $\frac{1}{2} \times 6 = 3$

**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. Write short notes on the following lathe operations with neat sketches :  $2\frac{1}{2} \times 4 = 10$
- (a) Chamfering
- (b) Facing
- (c) Knurling
- (d) Parting-off
12. Draw a neat sketch of turret lathe and label all the parts and explain its working. 5+5=10
13. Explain the constructional features of standard planer with neat sketch. 5+5=10
14. Explain Whitworth quick return mechanism of a shaper with line diagram. 5+5=10
15. (a) State four advantages and four limitations of the broaching machine. 4
- (b) Explain the rotary table continuous broaching machine with a line diagram. 3+3=6
16. Explain different types of lubricant with examples. 10
17. Explain the principle of gas welding with neat sketch and list out different equipments and accessories used in gas welding. 4+3+3=10
18. Explain ultrasonic welding process with neat sketch. 5+5=10

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