



C14-M-306

4254

BOARD DIPLOMA EXAMINATION, (C-14)
MARCH/APRIL—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 dead centre? 3
2. List three different methods of taper turning. 3
3. What is the difference between automatic and semi-automatic lathes? 3
4. How shapers are classified? 3
5. State the advantages of the hydraulic drive over a crank-type drive. 3
6. How is slotter differ from shaper? 3
7. Write any three factors to be considered while selecting the cutting fluids. 3
8. Briefly explain the principle of flame cutting. 3

- * 9. What are pressure welding and fusion welding? 3
10. What are the different types of oxyacetylene flames? 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. Draw a line diagram of engine lathe and describe the functions of its main parts. 4+6=10
12. Draw a line diagram of Capston lathe and describe the functions of its main parts. 4+6=10
13. Explain the principle of whitworth quick return mechanism of shaper with neat sketch. 10
14. Draw a line diagram of slotter and indicates its main parts and explain. 4+2+4=10
15. Draw a neat sketch of vertical broaching machine and explain its working. 5+5=10
16. (a) Mention any four functions of cutting fluids.
(b) Explain the methods of applications of cutting fluids. 4+6=10
17. Explain the principle of gas welding with neat sketch and describe the different equipments and accessories used in gas welding. 6+2+2=10
- * 18. Explain the principle of atomic hydrogen welding with neat sketch. Mention one advantage, one disadvantage and one application of atomic hydrogen welding. 7+1+1+1=10
