



C16-M-305

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BOARD DIPLOMA EXAMINATION, (C-16)
MARCH/APRIL—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. What are different types of a lathes?
2. Differentiate between live centre and dead centre of lathe.
3. List out different tool holding devices used on engine lathe.
4. What is the function of shaper? How is the size of shaper determined?
5. State the main differences between shaper and planer.
6. Write any 3 advantages of welding.
7. Sketch an oxyacetylene flame and identify the various zones.
8. Write short notes on (a) soluble oils and (b) chemical compounds.

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9. List ^{*} three limitations of gas metal arc welding.
10. Name any six important parts of Milling machine.

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 main parts.
12. Write short notes on the following parts :
- (a) Steady rest
 - (b) Tail stock
 - (c) 3-jaw chuck
13. Explain with neat sketch of crank and slotted lever mechanism of shaper.
14. (a) Draw a neat sketch of planner.
(b) Explain the procedure of submerged arc welding.
15. Draw internal pull broach and show various elements on it. Briefly explain them.
16. Explain the construction details of plain milling machine with the help of neat sketch.
17. State the principle of gear hobbing with neat sketch and explain the operation of gear hobbing.
18. Explain the methods of applications of cutting fluids.

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