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C14-M-306

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**BOARD DIPLOMA EXAMINATION, (C-14)  
OCTOBER/NOVEMBER-2018  
DME – THIRD SEMESTER EXAMINATION**

**MANUFACTURING TECHNOLOGY – I**

*Time : 3 Hours ]*

[ Total Marks: 80

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**PART-A**

3X10=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. What are the different types of lathes?
2. Write the differences between live center and dead center.
- \* 3. List out different tool holding devices used in engine lathe.
4. How are shapers classified?
5. Write the working principle of a planer.
6. What is the difference between shaper and slotter?
7. What is cutting fluid? How do cutting fluids improve machine tool life?
8. Write the principle of arc welding.
9. List out the equipment's required for oxy-acetylene welding.
10. List out any six defect's of welds.

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## PART-B

10X5=50

**Instructions** :

1. Answer any **Five** questions.
2. Each question carries **ten** marks.
3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

11. Draw the line diagram of engine lathe and describe the functions of its main parts.
12. Write a short note on
  - i. Centering
  - ii. Turning
  - iii. Facing
  - iv. Knurling
13. Explain the construction details of standard shaper with a neat sketch.
14. Explain the principle of whitworth quick return mechanism of slotter.
15. Draw a neat sketch of vertical broaching machine and explain its working.
16. (a) Write the properties of cutting fluids.  
(b) Write the types of cutting fluids and explain about straight oils.
17. Explain tungsten inert gas welding with the help of neat sketch and write its advantages and disadvantages three each.
18. Explain ultra-sonic welding with neat sketch and write any three of its applications

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