



C14-M-306

4253

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH / APRIL - 2019

DME - III 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) Answer should be brief and straight to the point and shall not exceed five simple sentences.

- 1 How the size of an engine lathe is specified ?
- 2 List out any six work holding devices used in lathe.
- 3 Compare semi-automatic and automatic production lathes. (any three)
- 4 What is the working principle of shaper ?
- 5 How the slotter is specified ?
- 6 List any six work holding devices used in planer.
- 7 Mention the types of cutting fluids.
- 8 Write three differences between pressure welding and fusion welding.
- 9 State the factors to be considered while selecting an electrode.
- 10 Write any three differences between soldering and brazing.

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[Contd...

PART - B**10×5=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 Explain about the constructional details of an engine lathe with a neat line diagram. Write the functions of each part.
 - 12 Explain about the turret indexing mechanism in production lathes with a neat sketch.
 - 13 Describe the working principle of hydraulic quick return mechanism of a shaper with a neat line diagram and state two advantages.
 - 14 Explain the open and cross belt table drive mechanism of planer.
 - 15 Explain about the working of the vertical broaching machine with a neat sketch.
 - 16 What are the properties of cutting fluids ? Explain.
 - 17 Explain about the submerged arc welding with the help of a neat sketch. State its advantages.
 - 18 Explain the working procedure of ultrasonic welding with a neat sketch. State its advantages and applications.
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