



C16-M-106

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**BOARD DIPLOMA EXAMINATION, (C-16)**

MARCH / APRIL - 2019

**DME - FIRST YEAR EXAMINATION**

**WORKSHOP TECHNOLOGY**

Time : 3 Hours]

[Total Marks : 80

**PART - A**

**2×15=30**

**Instructions :**

- (1) Answer any 15 questions.
- (2) Each question carries 2 marks.
- (3) Answer should be brief and straight to the point and shall not exceed five simple sentences.

- 1 List out any four carpentry processes.
- 2 Draw a neat sketch of hand saw and name the parts.
- 3 State two differences between marking gauge and mortise gauge.
- 4 What is tap? Name the two taps in a set.
- 5 State the use of pipe vice in fitting shop.
- 6 Write the specifications of chisel.
- 7 State two advantages of power hacksaw.
- 8 State any two advantages of forging.
- 9 Name any four tools commonly used in sheet metal works.
- 10 Draw a neat sketch of a stake and name its parts.

5046 ]

1

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- 11 What is hem ? List out the three types of hems.
- 12 List various types of drills used.
- 13 State the difference between counter boring and counter sinking.
- 14 How is a drilling machine specified ?
- 15 List any four types of patterns used in foundry shop.
- 16 What is a core? State its purpose.
- 17 List any four methods of hot working process.
- 18 State the working principle of hot rolling.
- 19 State any two effects of cold working of metals.
- 20 State any two advantages of cold working of metal.

**PART - B**

**10×5=50**

**Instructions :**

- (1) Answer any **FIVE** questions.
- (2) Each question carries **TEN** marks.
- (3) Answer should be comprehensive and criterion for valuation is the content but not the length of the answer.

- 21 Explain the constructional details and uses of metal jack plane with a neat sketch.
- 22 (a) Explain the following carpentry joints with neat sketch :
  - (i) Mortise and tenon joint
  - (ii) Dovetail joint
- (b) Difference between hot working and cold working.

- 23 (a) Draw a neat sketch of combination set. Name the parts.  
(b) Explain the following fitting operations :  
(i) Sawing  
(ii) Tapping.
- 24 Name the various forging defects and state the causes and remedies.
- 25 Explain the following sheet metal operations with the help of sketches :  
(a) Bending  
(b) Drawing  
(c) Squeezing.
- 26 Draw neat sketch of radial drilling machine, label the parts and explain their functions.
- 27 Explain about shell moulding with a neat sketch, and give its advantages and disadvantages.
- 28 (a) Explain the different properties of moulding sand.  
(b) Describe Match plate pattern with a neat sketch.
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