



**C20-A-106**

**7007**

**BOARD DIPLOMA EXAMINATION, (C-20)  
OCTOBER/NOVEMBER—2023  
DAE – FIRST YEAR EXAMINATION  
WORKSHOP TECHNOLOGY**

*Time : 3 Hours ]*

*[ Total Marks : 80*

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**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. Draw a neat sketch of wooden jack plane and label its parts.
2. List any six marking and measuring tools used in carpentry.
3. Draw a neat sketch of bench vice and label the parts.
4. State the uses of surface plate and V-block.
5. Sketch the anvil used in black smithy and name the parts.
6. List out any six metals used in sheet metal work.
7. Draw a neat sketch of snip used in sheet metal shop and name the parts.
8. Write any three specifications of a drilling machine.
9. Draw a neat sketch of strike off bar and state its use.
10. What is cold working process?

- Instructions :** (1) Answer **all** questions.  
(2) Each question carries **eight** marks.  
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

**11.** Explain about Vernier Callipers with neat sketch.

**(OR)**

Explain any four fitting operations with diagrams.

**12.** Describe the following hand forging operations with neat sketches :

- (a) Upsetting
- (b) Drawing down
- (c) Setting down

**(OR)**

Explain the construction and working of 'spring hammer' with the help of line diagram.

**13.** Draw a neat sketch of radial drilling machine, label the parts and explain their functions.

**(OR)**

Explain the following drilling operations with line diagrams :

- (a) Reaming
- (b) Tapping
- (c) Spot facing

**14.** Explain the various properties of moulding sand.

**(OR)**

Explain the construction and working of 'centrifugal casting' and write any three applications.

**15.** Explain the hot extrusion process with a neat sketch.

**(OR)**

Explain the following cold working processes with line diagrams :

- (a) Drawing
- (b) Bending

**PART—C**

10×1=10

- Instructions :**
- (1) Answer the following question.
  - (2) The question carries **ten** marks.
  - (3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

- 16.** Explain the hot rolling process in detail with the help of various rolling arrangement diagrams.

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