

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER – 2020**

**MANUFACTURING PROCESS**

[Maximum Marks: 75]

[Time: 2.15 Hours]

**PART-A**

(Answer *any three* questions in one or two sentences. Each question carries 2 marks)

- I. 1. What is the purpose of Chaplet?  
2. Mention the function of flux.  
3. What is Comparators?  
4. Define the hot working processes.  
5. List the factors to be considered for the selection of electrodes in welding. (3 x 2 = 6)

**PART-B**

(Answer any *four* of the following questions. Each question carries 6 marks)

- II 1. What are the type of Defects in metallic crystals and explain the Types of Point defects?  
2. Explain the ingredients of molding sand.  
3. Write a Note on: (a) Sine bar (b) Feeler Gauge.  
4. Compare the flat die forging and closed die forging.  
5. List the types of pattern making materials and its advantages.  
6. Explain the Principle of Arc Welding.  
7. Explain the types of Oxyacetylene flames. (4 x 6 = 24)

**PART-C**

(Answer *any of the three units* from the following. Each full question carries 15 marks)

**UNIT – I**

- III (a) Explain with neat sketch, working of inside Micro meter. (8)  
(b) Explain the working of electrical Comparators. (7)

**OR**

- IV (a) Explain the working of Reed type mechanical Comparators. (8)  
(b) Explain with neat sketch, working of Vernier Height gauge. (7)

**UNIT – II**

- V (a) Explain with neat sketch: MIG welding (8)  
(b) Compare Soldering and Brazing. (7)

**OR**

- VI (a) Explain with neat sketch the Submerged arc welding. (8)  
(b) Explain defects in welding. (7)

**UNIT- III**

- VII (a) Explain the processes (a) Extrusion (b) Drawing. (8)  
(b) Describe the types of bonding and its properties. (7)

**OR**

- VIII (a) Explain the type of Hammers used in forging. (8)  
(b) Explain the type of metallic crystal structures. (7)

**UNIT - IV**

- IX (a) Explain Gravity or permanent die casting. (8)  
(b) Compare Thermo plastic and thermosetting plastic materials. (7)

**OR**

- X (a) Explain the injection molding process of plastics. (8)  
(b) Explain the types of pattern allowances. (7)

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