

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, APRIL - 2024**

MANUFACTURING PROCESS

[Maximum marks: 100]

[Time: 3 Hours]

PART – A

Maximum marks: 10

I. (Answer *all* the questions in one or two sentences. Each question carries **2** marks)

1. Define precision measuring instruments.
2. Explain Arc length.
3. Name different types of Dislocations.
4. Define (a) Moulding (b) Casting
5. What is meant by Thermosetting plastic?

(5 x 2 = 10)

PART – B

Maximum marks: 30

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

1. Differentiate between direct measuring and indirect measuring instruments.
2. Write notes on (a) Snap Gauge (b) Screw pitch gauge
3. List the advantages and disadvantages of welding.
4. Explain non-destructive testing of welded joints.
5. List down various types of cold working operations.
6. Describe the types of hand hammers.
7. What are the properties of moulding sand?

(5 x 6= 30)

PART – C

Maximum marks: 60

(Answer *one full* question from each unit. Each full question carries **15** marks)

UNIT – I

- III.** (a) Sketch and explain the parts of a Vernier caliper. (8)
- (b) Explain the working of a Dial indicator. (7)

OR

- IV.** (a) How the measuring instruments are classified? (8)
(b) Illustrate the working of a Depth micrometer with figure. (7)

UNIT - II

- V.** (a) Explain TIG welding process with a sketch. (8)
(b) Explain gas welding flames. (7)

OR

- VI.** (a) What are the arc welding equipment's? (8)
(b) What are Welding defects? Explain the different types of Welding defects. (7)

UNIT - III

- VII.** (a) Differentiate between Cold working & Hot working. (8)
(b) Describe BCC, FCC and HCP. (7)

OR

- VIII.** (a) Explain different Forging methods. (8)
(b) Explain various Crystal defects. (7)

UNIT - IV

- IX.** (a) Describe various Pattern allowances. (8)
(b) Write down the composition of Moulding Sand. (7)

OR

- X.** (a) Sketch and explain plastic extrusion Moulding. (8)
(b) Describe the common defects in Casting. (7)
