

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, APRIL-2021**

MANUFACTURING PROCESS

[Maximum marks: 75]

(Time: 2.15 Hours)

PART – A

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

1. What is SWG?
2. What are the different types of flux coating used in welding electrode?
3. What are the main classification of Welding?
4. What do you mean by Unit cell?
5. List any four properties of moulding sand (3 x 2 = 6)

PART – B

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

1. Draw a neat sketch of outside micrometer and label its parts
2. Explain gauges and its classification
3. Write any three advantages and disadvantages of Soldering
4. Explain the different types of Welded joints
5. Write short notes of crystal defects
6. What are the difference between thermo plastic and thermosetting plastic?
7. List any 6 types of pattern used and explain (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) Write short notes on

- (i) Snap gauge (ii) Plug gauge (iii) Ring gauge (8)
- (b) Explain the working of a mechanical comparator with the help of a neat sketch (7)

OR

- IV.** (a) Draw a neat sketch of vernier depth gauge and explain (8)
(b) Explain the working of a optical comparator with the help of a neat sketch (7)

UNIT-II

- V.** (a) Explain thermit welding with the help of a neat sketch (8)
(b) Discuss welding defects (7)

OR

- VI.** (a) List any four welding symbols, draw their cross sections and explain (8)
(b) Compare between AC and DC arc welding (7)

UNIT-III

- VII.**(a) Describe crystal growth and grain formation (8)
(b) Explain cold and hot extrusion process (7)

OR

- VIII.**(a) Explain the different types of crystal structure of metallic elements (8)
(b) Explain the different types of forging process (7)

UNIT-IV

- IX.** (a) Explain injection moulding process (8)
(b) Explain the different types of moulding process based on position (7)

OR

- X.** (a) Explain each components of gating system in a casting (8)
(b) Write the advantages and disadvantages of die casting (7)
