

TED (15/19)3023
(Revision – 2015/19)

N22 – 09418

Reg. No.....
Signature

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER – 2022**

MANUFACTURING PROCESS

[Maximum Marks: **100**]

[Time: **3 Hours**]

PART-A

[Maximum Marks: **10**]

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

1. What is Welding?
2. Define a gauge?
3. List any four pattern materials used in foundry.
4. Define Forging.
5. List any four properties of moulding sand. (5x2=10)

PART-B

[Maximum Marks: **30**]

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

1. Explain TIG welding with the help of figure.
2. Differentiate between Soldering and Brazing.
3. What are the advantages and disadvantages of hot working of metals?
4. Write the functions of riser in casting.
5. Explain BCC crystal structure with figure.
6. List any six cold working operations.
7. Explain about a comparator? How are the comparators classified? (5x6=30)

PART-C

[Maximum Marks: **60**]

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

UNIT-1

III. (a) Write short notes on the following

- i) Precision Instruments ii) Non-Precision Instruments iii) Line Standard Measuring Instruments iv) End Standard Measuring Instruments (8)
- (b) Sketch and label the parts of an outside micrometer (7)

OR

IV. (a) Write short notes on:

i) Screw Pitch Gauge ii) Feeler Gauge. Also sketch them (8)

(b) Sketch and label the parts of a Vernier caliper. (7)

UNIT-II

V. (a) Explain different types of flames in Oxy -Acetylene Gas Welding with figure. (8)

(b) Briefly explain thermit welding. (7)

OR

VI. (a) Explain MIG welding with a neat sketch. (8)

(b) Explain submerged arc welding with figure. (7)

UNIT-III

VII.(a) Distinguish between FCC and HCP crystal structures. (8)

(b) Differentiate between open and closed die forging. (7)

OR

VIII. (a) Explain any four tools used in hand forging with figure. (8)

(b) Explain the process of hot rolling with suitable figure. (7)

UNIT-IV

IX. (a) Explain about the various pattern allowances used in casting. (8)

(b) Explain the process of centrifugal casting. (7)

OR

X. (a) Differentiate between thermosetting and thermoplastics with suitable examples. (8)

(b) Explain the process of thermoforming of plastics. (7)
