

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2018

**MANUFACTURING PROCESS**

[Time : 3 hours

(Maximum marks : 100)

**PART — A**

(Maximum marks : 10)

Marks

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

1. List out any four Electrical properties of materials.
2. List the classification of comparators.
3. Define welding.
4. Define the seasoning of wood.
5. Lists any four properties required for good moulding sand.

(5×2 = 10)

**PART — B**

(Maximum marks : 30)

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

1. Define the following mechanical properties.  
(a) Creep (b) Fatigue failure (c) Brittleness.
2. Interpret the Gauges. Explain Plug gauge.
3. Compare AC and DC Arc welding.
4. Comparing the difference between Welding and Soldering.
5. Summarize the types of moulding sand.
6. Explain magnetic particle test.
7. Differentiate between Linear measurement and plane surface measurement.

(5×6 = 30)

## PART — C

(Maximum marks : 60)

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

## UNIT — I

- III (a) Differentiate between Destructive and Non destructive test. 8  
 (b) Illustrate the stress strain diagram for ductile material and mark the salient points. 7

OR

- IV (a) Write short notes on :  
 (i) Strength (ii) Hardness  
 (iii) Stiffness (iv) Toughness 8  
 (b) Explain X-ray test with neat sketch. 7

## UNIT — II

- V (a) Sketch figure of a Micro meter and label its parts. 8  
 (b) List the different types of comparator, Sketch the figure of a dial indicator. 7

OR

- VI (a) Explain the working of a Reed type mechanical comparator with sketch. 8  
 (b) Write the use of the following gauges :  
 (i) Ring gauge (ii) Snap gauge 7

## UNIT — III

- VII (a) Describe the working of TIG welding with sketches. 8  
 (b) With the help of sketches, describe the types of Oxy - Acetylene flame. 7

OR

- VIII (a) Describe about the following forging operations.  
 (i) Upsetting (ii) Setting down  
 (iii) Punching (iv) Drawing down 8  
 (b) Explain the working of a MIG welding with sketches. 7

## UNIT — IV

- IX (a) Define pattern allowances. Explain major three pattern allowances. 8  
 (b) Sketch a twist drill and name the parts. 7

OR

- X (a) Write the classification of files. Name and explain various types of files. 8  
 (b) Compare the characteristics of soft wood and hard wood. 7