Reg. No. ....

Signature ....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2017

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.   What is a Comparator ?

2.   Name the various types of measurements.

3.   Define arc length.

4.   List out the most common metallic crystal structure.

5.   Define thermo setting plastic.   (5×2 = 10)

PART — B

(Maximum marks : 30)

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

1.   Explain the working of a reed type Comparator.

2.   Write notes on :

   (a) Snap gauge   (b) Screw pitch gauge

3.   Differentiate soldering and brazing.

4.   Comment the use of flux coating in electrodes.

5.   Write down the various tools used in machine forging.

6.   Describe the types of hand hammers.

7.   List out various pattern materials.   (5×6 = 30)

Marks

PART — C

(Maximum marks : 60)

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

UNIT — I

III (a) Draw the diagram of a vernier caliper and name its parts.   8

    (b) Explain the working of a dial indicator.   7

OR

IV (a) How a micrometer works and show the reading 12.46mm.   8

    (b) Illustrate the working of a depth micrometer with figure.   7

UNIT — II

V (a) What are the arc welding equipments.   8

   (b) Sketch and explain gas welding flames.   7

OR

VI (a) Explain TIG welding process with a sketch.   8

    (b) Sketch important welding symbols.   7

UNIT — III

VII (a) Explain various crystal defects.   8

    (b) Describe BCC, FCC and HCP.   7

OR

VIII (a) List down the various forging methods and explain open die forging.   8

     (b) Compare drawing, rolling and forging process.   7

UNIT — IV

IX (a) Explain investment casting.   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

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