

SECOND SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/
TECHNOLOGY—OCTOBER, 2014

MANUFACTURING PROCESS

[Time : 3 hours

(Maximum marks : 100)

PART—A

(Maximum marks : 10)

Marks

I Answer the following questions in one or two sentences. Each question carries 2 marks.

1. Define ductility.
2. What is the use of a feeler gauge ?
3. Define welding.
4. What do you mean by draft allowance ?
5. What is the use of a combination set ?

(5×2=10)

PART—B

(Maximum marks : 30)

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

1. Define the following mechanical properties of metals :
(i) Strength (ii) Hardness (iii) Toughness
2. Explain radiographic test of metals.
3. Draw the external micrometer and mark its main parts.
4. Explain flat die forging and closed die forging.
5. Explain the process of brazing.
6. Explain the following properties of moulding sand :
(i) Porosity (ii) Plasticity (iii) Refractoriness
7. Explain the use of runner and riser in a gating system.

(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) Explain rockwell hardness test. 8
(b) Explain ultrasonic test of materials. 7

OR

	Marks
IV (a) Explain liquid penetrant test.	8
(b) Explain creep test.	7
UNIT—II	
V (a) Sketch vernier height gauge and mark its important parts.	7
(b) Draw and explain vernier bevel protractor.	8
OR	
VI (a) Explain the working of a optical comparator.	10
(b) Write the uses of the following gauges :	
(i) Ring guage (ii) Snape gauge	5
UNIT—III	
VII (a) Explain Smith's hearth.	7
(b) Explain the following Smith forgue operation :	
(i) Upsetting (iii) Drawing down	
(ii) Setting down (iv) punching	8
OR	
VIII (a) Draw the following weld joints :	
(i) Square butt (iii) Double-V	6
(ii) Single-V (iv) Single-U	
(b) State the function of pressure regulators, welding torch, Nozzle of gas welding.	9
UNIT—IV	
IX (a) Explain Pit Moulding.	7
(b) List different pattern materials.	8
OR	
X (a) Explain different types of moulding sand.	10
(b) List different fitting operations.	5