TED (15) – 3023

(REVISION — 2015)

Reg. No.....

Signature .....

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

MANUFACTURING PROCESS

[*Time* : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

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

1. Differentiate plug gauge and snap gauge.
2. Compare welding and soldering.
3. What are the difference between ductility and malleability ?
4. Distinguish between green sand and dry sand moulding.
5. Define re-crystallization.

(5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Explain gauges and its classification.
2. Illustrate the working of Tungsten Inert Gas (TIG) welding.
3. List the advantage and disadvantage of hot working over cold working.
4. Explain with sketch the centrifugal casting.
5. Explain the following forging operations.
   (i) Upsetting (ii) Punching (iii) Swaging
6. What is comparator ? Explain its classification.
7. With neat sketch, explain the submerged arc welding processes.

(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) Explain with sketch the working of outside micrometer. 7

(b) Illustrate the working of optical Comparators. 8

OR

IV (a) Explain with sketch the working of depth micrometer. 7

(b) Illustrate the working of electrical comparators. 8

UNIT — II

V (a) Explain with sketch the working principle of atomic hydrogen welding. 7

(b) Explain the different welding positions. 8

OR

VI (a) Explain the causes and remedies of the welding defects. 7

(b) Explain the oxy-acetylene gas welding processes. 8

UNIT — III

VII (a) Compare the direct extrusion and indirect extrusion hot working processes. 7

(b) Explain the following processes.

(i) Work hardening (ii) Solid solution hardening (iii) Strain ageing 8

OR

VIII (a) Illustrate with sketch cold drawing and cold extrusion processes. 7

(b) Explain the different types of forging processes. 8

UNIT — IV

IX (a) List and explain the type of moulding sand. 7

(b) Explain with sketch the blow moulding processes. 8

OR

X (a) Explain the different types of pattern. 7

(b) Explain the ingredients of moulding sand. 8

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