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TED. (15) -- 3023

Reg. No.

(REVISION -- 2015)

Signature

THIRD SEMESTER DIPLOMA EXAMINATION IN MECHANICAL
ENGINEERING — APRIL, 2017

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 direct reading measuring instruments.
2. List the advantages of welding.
3. Write short note on electrode coating.
4. Define crystal lattice.
5. Mention about split pattern.

(5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Describe indirect reading measuring instruments with example.
2. List the uses of comparators.
3. List the arc welding equipment.
4. Describe different hand hammers using in smithy.
5. List down various pattern allowances. Explain any one.
6. Sketch different welded joints.
7. Show different stages of investment casting.

(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 gauges and measuring instruments. Sketch any two. 7
- (b) Explain with sketch a vernier height gauge. 8

OR

- IV (a) Discuss the use and advantages of comparators. 7
- (b) Sketch and explain an optical comparator. 8

UNIT — II

- V (a) Differentiate between welding, soldering and brazing. 7
- (b) Illustrate different oxy-acetylene gas welding flames. 8

OR

- VI (a) Explain thermite welding with neat sketch. 7
- (b) Sketch the important welding symbols. 8

UNIT — III

- VII (a) Describe BCC, FCC and HCP. 7
- (b) Comment on recovery, recrystallization and grain growth. 8

OR

- VIII (a) Sketch and explain various tongs used in forging shop. 7
- (b) Explain various types of dislocations. 8

UNIT — IV

- IX (a) List and explain properties of molding sand. 7
- (b) State the importance of permanent mold casting and mention its limitations. 8

OR

- X (a) List different plastic molding processes and explain any one. 7
- (b) List down the properties of slush casting. 8
