



Dr.S.R.Ranganathan Library & Resource Centre  
Govt Polytechnic College ,Perumbavoor

TED (15) – 3023

(REVISION – 2015)

Reg. No. 15021363

Signature

THIRD SEMESTER DIPLOMA EXAMINATION IN MECHANICAL  
ENGINEERING — OCTOBER, 2016

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 two marks.

1. Define precision measuring instruments.
2. State least count of an instrument.
3. Define welding.
4. Name different types of dislocations.
5. Define molding & casting.

(5×2=10)

PART — B

(Maximum marks : 30)

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

1. Differentiate between direct reading and indirect reading instruments.
2. List the application of welding.
3. Explain non-destructive testing of welded joints.
4. Differentiate punching & drifting.
5. List down various types of tongs and explain any two.
6. What are the properties of molding sand ?
7. List the hand molding tools in foundry.

(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) How the measuring instruments are classified ? 7  
(b) Explain with sketch an inside micrometer. 8

OR

- IV (a) What are gauges ? List the important gauges. 7  
(b) Sketch and explain dial indicator. 8

UNIT — II

- V (a) With neat sketch, explain the principle of arc welding. 7  
(b) Describe gas welding arrangement with sketches. 8

OR

- VI (a) Explain MIG welding with proper figure. 7  
(b) What are welding defects ? Explain. 8

UNIT — III

- VII (a) Explain various crystal defects. 7  
(b) Compare drawing, rolling & forging. 8

OR

- VIII (a) Differentiate between cold working & hot working. 7  
(b) Explain different forging methods. 8

UNIT — IV

- ✓ IX (a) Describe various pattern allowances. 7  
(b) Explain different molding processes. 8

OR

- X (a) Discuss advantages and limitations of die casting. 7  
(b) Explain gravity die casting with sketches. 8