

MANUFACTURING TECHNOLOGY

(Mechanical Engineering)

Time: 3 hours

Max. Marks: 70

PART – A
(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) List the pattern allowances.
 - (b) List the various materials used to prepare moulds.
 - (c) Describe the necessity of Riser in a mould.
 - (d) Define the casting defect Misfit and Porosity.
 - (e) Define welding. Write the general classification of welding processes.
 - (f) Describe the types of flames used in Gas welding.
 - (g) Define Soldering and Brazing.
 - (h) List the various Destructive and Non-destructive tests of welding.
 - (i) Describe the requirements of Surface Treatment Processes.
 - (j) List the various Thermal or Mechanical modifications of surfaces.

PART – B
(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

- 2 What is a casting? Describe the various steps involved in obtaining a casting.
- OR**
- 3 Define solidification. Describe the general mechanism of solidification of a metal.

UNIT – II

- 4 Using neat sketch describe the process of Investment casting.
- OR**
- 5 Describe the Melting Process in a Cupola Furnace using neat sketch.

UNIT – III

- 6 Define Resistance welding. Describe the various methods of Resistance welding with sketches.
- OR**
- 7 Describe the process of cutting the Ferrous and Non-Ferrous metals using Oxy-Acetylene Gas.

UNIT – IV

- 8 Using neat sketch describe the Friction Welding process.
- OR**
- 9 List the various welding defects. What are the causes and remedies for these welding defects?

UNIT – V

- 10 List the characteristics and applications of surface Treatment Processes.
- OR**
- 11 Describe the Overlay Surface coating and Diffusion Surface coating.
