



- (b) Explain permanent mould casting.
- 3** Answer any **three** : **15**
- (a) Explain different pattern materials.
  - (b) Explain different types of cores.
  - (c) Explain fluidity and fluidity test.
  - (d) Explain the method for designing a riser.
  - (e) Write in brief about testing moulding sand properties.
- 4** Answer the following question : (any **eight**) **16**
- (a) Define 'Forgability'.
  - (b) With neat sketch explain 'spinning' operation.
  - (c) Define Recrystallisation temperature.
  - (d) Give the working principle of carbon arc welding.
  - (e) What is fundamental difference between soldering and Brazing ?
  - (f) What is 'Angle of bite' in rolling process ?
  - (g) Give the function of flux used in Arc welding.
  - (h) What is the source of heat in Resistance welding ?
  - (i) Define rolling. How does cold rolling is differ from hot rolling process.
  - (j) Mention the equipment used in gas welding.
- 5** Attempt any **three** **18**
- (i) Differentiate between TIG welding and MIG welding.
  - (ii) Name the various methods to make up shape article from sheet metal. Explain any one of them.
  - (iii) Thermo chemical welding process.
  - (iv) Types of flame used in gas welding.
- 6** Write short note (any **three**) **16**
- (i) Welding defects.
  - (ii) Extrusion process
  - (iii) Wire drawing
  - (iv) Resistance welding.