



S.E. (Mechanical) (Semester – I)(2003 Course) Examination, 2010

MANUFACTURING PROCESSES – I

Time : 3 Hours

Max. Marks : 100

SECTION – I

1. a) Define the term “Pattern” and “Casting”. Why casting is preferred over the other method of manufacturing ? State any one example of casting component. 4
- b) Explain briefly multipiece pattern with neat sketch. 4
- c) Describe briefly principle of centrifugal casting with suitable block diagram. 4
- d) Differentiate between thermoplastic and thermosetting plastic material. 4

OR

2. a) What is core and core prints ? Explain its use in moulding process with suitable example. 4
  - b) Describe in brief, principle of continuous casting with neat sketch. 4
  - c) Explain following defects of casting. 4
    - i) Mismatch
    - ii) Hot tear
  - d) Compare injection and compression plastic moulding methods. 4
3. a) Describe in brief working principle of wire drawing with simple block diagram. 4
  - b) Explain with neat sketch, 3-high mill and 4-high mill of rolling process. 4
  - c) Write down advantages and limitations of mechanical and hydraulic presses. 4
  - d) Describe principle of metal spinning sheet metal operation with neat sketch. 4

OR

4. a) Compare forward and backward extrusion process with sketch. 4
- b) What do you understand by term “forging” ? How does hand forging differ from machine forging ? 4
- c) Explain following sheet metal operations with diagram. 4
  - i) Notching
  - ii) Perforating
- d) Explain following categories of forging : 4
  - i) Open die forging
  - ii) Closed die forging

- OR

- SECTION - II

- OR

- OR

- OR

- B/IV/10/750