

Manufacturing Processes
(ME-103E, June-2005)

Note: Attempt any five questions in all selecting at least one question from each unit.

UNIT-I

1. a) What is the difference between metal machining and metal forming? Explain the importance of these processes.
b) What do you mean by industrial safety? Discuss the safety rules to be followed in a large machining plant.
2. Define the following mechanical properties of engineering materials.
 - a) Hardness
 - b) Strength
 - c) Toughness
 - d) Ductility
 - e) Stiffness
 - f) Malleability
 - g) Brittleness
 - h) Resilience

UNIT-II

3. a) Explain the functions of the following:-
 - i) Mater pattern
 - ii) Riser
 - iii) Runner
 - iv) Gate
 - v) Coreb) Explain the common castings and their remedies.
4. What are the required properties of good care? Explain the care making operations in detail.

UNIT-III

5. Explain the difference between cold working and hot working processes. Also discuss advantages and limitations of each.
6. Explain and give advantages and applications of the following processes:
 - a) Rolling
 - b) Wire drawing

UNIT-IV

7. a) Discuss the mechanics of chip formation. Name different types of chip formed during machining and explain the formation reasons.
b) Discuss the difference between shaper, planer machines. What types of surfaces can be produced on shaper and planer?
8. Define soldering and brazing process. What are the advantages of these processes? Discuss the common welding defects and their remedies.