

**Manufacturing Processes–1 (New)**  
(ME-209, Dec. 2003)

Time: 3 Hours

Max. Marks: 60

**Note:** Question No. 1 is compulsory. Attempt any four questions from section B and two questions from section C.

**Section-A**

1. (a) What are the common materials used for pattern making?  
(b) How the moulding sand is prepared?  
(c) Name some of the important casting process.  
(d) What is a pattern making allowance?  
(e) What are the common defects in casting?  
(f) What are the different methods of welding?  
(g) Briefly explain butt welding.  
(h) What do you understand by Thermit welding?  
(i) What is the difference between brazing and welding?  
(j) What are the properties of good moulding sand?

**Section-B**

2. Describe with the help of suitable sketch the various types of joints made in welding.
3. How are casting prepared? Explain.
4. What do you understand from basic and acid cupolas? Where each type is preferred and why?
5. What are the equipments required for electric arc welding? Explain.
6. What are the factors through which directional solidification of casting can be controlled?

**Section-C**

7. What do you understand by the term 'Gating system'? What are the main requirements expected of an ideal gating system?
8. What do you understand from centrifugal casting? How are the centrifugal casting methods classified?
9. Describe in brief the equipment required for oxy-acetylene welding and cutting.