

**II B.Tech II Semester Supplementary Examinations,
November/December 2005**

PRODUCTION TECHNOLOGY-I

(Common to Mechanical Engineering and Aeronautical Engineering)

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. (a) Explain the advantages of casting over other manufacturing processes.[6+6+4]
(b) How does clay content affect molding, sand strength and permeability?
(c) Is an allowance made for draft in a disposable mold casting?
2. (a) Write short notes on [10+4+2]
 i. Hot box molding
 ii. Cold box molding
(b) What are the defects caused by molding materials?
(c) Name the methods of bench molding?
3. (a) Give the classification of centrifugal casting. Discuss the applications of each class. [6+10]
(b) Discuss the various types of gates that are normally used.
4. (a) How the work piece is prepared for gas welding? Explain with neat sketches? [8+8]
(b) Explain various welding positions?
5. (a) What is the source of welding heat in Thermit welding? What are the applications of Thermit welding? [8+8]
(b) What does a Thermit mixture consist of and what reactions take place in Thermit welding?
6. (a) Explain the following metal joining techniques. [12+4]
 i. Dip soldering
 ii. Wave soldering
 iii. torch brazing
 iv. Dip brazing.
(b) How is Brazing different from Welding? And what are the materials used in Brazing.
7. (a) Classify the plastics with examples. [5+6+5]
(b) What are the forms of raw materials for processing plastics in to products?
(c) Justify plastics as engineering materials

8. (a) What are the advantages of powder metallurgy process? [8+8]
(b) What are 'cermets'? Give a few examples of useful applications of powder metallurgy.

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