

II B.Tech II Semester Supplementary Examinations, April/May 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 following pattern allowances : (i) Distortion. (ii) Mould wall movement
(b) What are the reasons for reconditioning a used sand ?
2. (a) Why is sand testing important? Describe briefly the essential tests required to evaluate molding sands for steel castings.
(b) How is the molding sand stored?
3. (a) What are the advantages of true centrifugal process? Discuss the influence of average rotational speed upon centrifugal casting.
(b) Describe the functions of risers.
4. (a) Select any 3 types of pressure welding which are widely used in automobile industry and explain the principle?
(b) Show the arrangement for gas welding? What is the function of each one in the welding?
5. (a) Why is cleaning of metal important for successful resistance welding? Explain.
(b) State the purpose of Thermit welding. Where would you recommend it and why?
6. (a) Explain the following metal joining techniques.
 - 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) Explain vacuum forming process with a neat sketch. Give some examples of parts made by this process.
(b) What similarities are there between compression molding and closed die forging ?
8. (a) Describe various methods of power production.
(b) What is meant by green compact ? Is green strength important ? Explain?
