

**II B.Tech I Semester (R07) Supplementary May 2012 Examinations
PRODUCTION TECHNOLOGY
(Mechanical Engineering)**

Time: 3 hours**Max. Marks: 80**

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

1. (a) List out various pattern materials and discuss their advantages and disadvantages.
(b) Explain the functions of skim bob, runner and sprue in a gating system.
2. (a) What are the methods which will improve the efficiency of the riser?
(b) Describe the constructional features of a cupola furnace.
3. (a) Differentiate between oxy-acetylene cutting process and arc cutting process.
(b) With the help of a neat sketch explain the spot welding process.
4. Explain about welding defects. What are the tests used to detect the defects in welding?
5. (a) Derive the forces in rolling.
(b) Explain about strain hardening, recrystallisation and grain growth.
6. (a) Explain the mechanism of blanking and what are the different stages of blanking?
(b) Explain the stretch forming operation with a neat sketch.
7. (a) Classify and explain different forging tools.
(b) Differentiate between forward extrusion and backward extrusion processes.
8. (a) Classify the plastic processing methods.
(b) What are the applications of plastics?
