

Code No: R05310303

Set No. 1

III B.Tech I Semester Regular Examinations, November 2008
PRODUCTION TECHNOLOGY
(Common to Mechanical Engineering, Mechatronics and Automobile
Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) What are composite moulds? Why are they used? Where are they used?
(b) What are different types of gates in sand moulding process? [9+7]
2. Explain with the help of neat sketches, the construction and working of the following types of crucible furnaces.
(a) Coke fired pit furnace
(b) A gas fired crucible furnace
(c) An oil fired tilting furnace [6+5+5]
3. (a) What are the basic requirements of welding? Explain.
(b) Describe the gas welding process with neat diagram. [8+8]
4. (a) How heat is generated in frequency induction welding? Explain.
(b) What are the different zones of HAZ and how it affects the strength of weld? [8+8]
5. (a) What are the various parameters those influence the rolling load? Explain.
(b) What is strain hardening? Explain in detail. [8+8]
6. (a) Explain residual stresses in rods, wires and tubes drawn.
(b) Explain the process of piercing. How does it differ from hot spinning? Explain. [8+8]
7. (a) What is the difference between open die forging and impression die forging?
(b) What are the attractive features of extrusion process? [8+8]
8. (a) Describe your opinion regarding the recycling of plastics vs the development of plastics that are biodegradable.
(b) Explain how you would go about determining the hardness of plastics. [8+8]
