

III B.Tech I Semester Supplementary Examinations, November 2006
MANUFACTURING TECHNOLOGY
(Mechatronics)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Briefly discuss the various Methods of Moulding.
(b) Explain the process of Core making. [10+6]
2. (a) Explain the process of making Moulds by Jolt-Squeezing machines.
(b) Describe Oil Fired tilting type Crucible Furnace with a neat sketch. [8+8]
3. (a) Compare the hot rolling and cold rolling process.
(b) Explain the theory of rolling and rolling forces. [8+8]
4. (a) Differentiate between extrusion and drawing.
(b) Explain the forward extrusion process with a neat sketch. [8+8]
5. (a) Differentiate between up-setting and drawing down operations.
(b) Sketch and explain the sequence of operations involved in making hexagonal bolt by forging operation. [6+10]
6. (a) Differentiate between TIG and MIG welding methods and explain the advantages and limitations.
(b) Sketch and explain the construction and working of LASER beam welding. [8+8]
7. (a) Describe various methods to find out the flatness and accuracy of surface plate.
(b) Describe three methods of testing straight edge one metre long, stating the advantages and sources of error in each. [8+8]
8. (a) What are limit gauges? Sketch and explain the different types of limit gauges.
(b) Distinguish between a measuring instrument and gauge. [10+6]
