

III B.Tech I Semester Supplementary Examinations, February 2008
MANUFACTURING TECHNOLOGY
 (Mechatronics)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
 All Questions carry equal marks

1. (a) Describe various types of Chaplets used in moulding
 (b) Discuss the different types of cores. [8+8]
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) Briefly explain the importance of various metal working processes.
 (b) Describe recovery, recrystallization and grain growth phenomena in metal working process. [8+8]
4. (a) Distinguish between extrusion and rolling processes
 (b) Explain the advantages of hydrostatic extrusion over other types of extrusion processes [8+8]
5. (a) What are the advantages of press forging over the drop forging?
 (b) How a hydraulic press and mechanical eccentric press is specified? Explain their advantages and applications. [6+10]
6. (a) Differentiate between gas and arc welding processes and mention their applications and limitations.
 (b) Describe the characteristics of various flames used in gas welding and their applications. [8+8]
7. (a) How the flatness of the parts can be checked? Sketch various instruments used for this?
 (b) Sketch and explain the construction and working of dial indicator. [8+8]
8. (a) Explain the importance of basic size, fundamental deviation and tolerance.
 (b) Find the dimensions of 'Go' and 'No Go' snap gauges for a shaft of dimension $30_{-0.04}^{-0.02}$? [6+10]
