**R07** 

[8+8]

# **II B.TECH – I SEM EXAMINATIONS, NOVEMBER - 2010**

## PRODUCTION TECHNOLOGY

Common to Mechanical Engineering, Mechatronics, Automobile Engineering Time: 3 hours Max Marks: 80

### Answer any FIVE Questions All Questions carry equal marks \*\*\*\*\*

- 1. (a) How do you differentiate metal working processes from metal cutting processes?
  - (b) Differentiate hot working and cold working.
- 2. (a) Explain the effect of thermal conductivity and thermal expansion on welding process?
  - (b) Why are residual stresses important in welded components? Describe the methods used for relieving or reducing residual stresses in welds? [8+8]
- 3. (a) Name the various heating equipments used in forging process? Explain the computer functioning of black smith's forging furnace?
  - (b) What do you understand by the term flash in a forging? Explain with the help of a sketch? [8+8]

## 4. Write a short notes on:

Code No: 07A3EC05

- (a) Mechanical presses
- (b) power presses. [16]
- 5. (a) Give the complete classification of welding processes.
  - (b) What is the purpose of pre and post heat treatment in welding operation? [8+8]
- 6. (a) What are the advantages of casting process over other shaping processes?
  - (b) Give an account of different pattern materials. [8+8]
- 7. (a) How are risers and sprues placed in sand molds? Explain with appropriate sketches.
  - (b) Describe the procedures that would be involved in making a bronze statue? Which casting process(es) would be suitable? Why? [8+8]
- 8. (a) Explain the thermosetting plastics and thermoplastic plastics clearly?
  - (b) Explain the method used for processing thin hallow plastics with a neat sketch?  $$[8\!+\!8]$$

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