

B.Tech. Degree III Semester Examination, November 2008**SE 304 MANUFACTURING PROCESS***(2006 Scheme)*

Time: 3 Hours

Maximum Marks: 100

(8 x 5 = 40)

PART A(Answer All questions)

- I
- Explain the process of tempering.
 - Discuss about the Heat affected zone.
 - Discuss briefly casting defects.
 - Differentiate between hot working and cold working.
 - Explain the 'Gating System' of sand casting.
 - What are the common welding defects?
 - Differentiate between orthogonal and oblique cutting.
 - Explain the process of USM.

PART B

(4 x 15 = 60)

- II
- How engineering materials are classified? Discuss briefly the properties of engineering materials. (10)
 - What is Eutectic system? Explain. (5)
- OR**
- III
- Explain the following heat treatment process of steel.
- | | | |
|----------------|---------------|------|
| i) Normalising | ii) Hardening | |
| iii) Annealing | | (15) |
- IV
- Explain submerged arc welding with a neat sketch. (10)
 - Explain the term weldability. (5)
- OR**
- V
- Explain the following process:
- | | | |
|----------------------------|---------|------|
| i) TIG | ii) MIG | |
| iii) Electron Beam welding | | (15) |
- VI
- What are the desired properties of moulding sand? (8)
 - Discuss the types of patterns. (7)
- OR**
- VII
- Explain the following with the help of neat sketch.
- | | | |
|----------------|-------------------------|------|
| i) Dye casting | ii) Centrifugal casting | |
| | | (15) |
- VIII
- Discuss about the following with a sketch:
- | | | |
|------------|---------------|------|
| i) Rolling | ii) Extrusion | |
| | | (15) |
- OR**
- IX
- Explain the following machining process with the help of neat sketches:
- | | | |
|--------|---------|------|
| i) ECM | ii) EDM | |
| | | (15) |

