

Roll No.

Total No. of Pages : 2

Total No. of Questions : 09

B.Tech. (AE) (Sem.-3)

MANUFACTURING PROCESSES

Subject Code : BTAE-304 (2011 Batch)

Paper ID : [A1149]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.

SECTION-A

1. Write briefly :

- a) Name different types of sand.
- b) What is die casting process?
- c) Name five welding defects.
- d) Define rolling.
- e) What is piercing operation?
- f) Draw the sketch of a broaching tool.
- g) What is difference between drilling and boring ?
- h) Name different types of milling machine tools.
- i) Why non-traditional machining is needed?
- j) What is material of tool in EDM?

SECTION-B

2. What is metal casting process? Describe the investment casting process in brief.
3. What is the difference between filler metal and flux materials?
4. With the help of neat sketch, explain the principle of hot rolling.
5. Discuss the constructional features of jig boring machine.
6. Elaborate the principle of machining of Abrasive water jet machining process.

SECTION-C

7. Describe in detail the different elements of a gating and riser system with the help of neat sketches.
8. a) Draw and describe in brief the constructional features of plastic moulding machines.
b) Differentiate between up milling and down milling.
9. Write short note on any two of the following :
 - a) Plasma arc welding
 - b) Vacuum casting
 - c) Laser beam machining