Roll No. ☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(AE) (2011 Onwards) (Sem.–3)
MANUFACTURING PROCESSES
Subject Code : BTAE-304
M.Code : 54112

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 have to attempt ANY FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt ANY TWO questions.**

SECTION-A

1. **Answer briefly :**

   a. What is allowance? How shrinkage allowance is influenced by choice of material?

   b. Define pattern. Name any two patterns.

   c. What is core?

   d. What is thermit welding?

   e. Name any two welding defects along with their causes and remedies.

   f. Explain spinning process in brief.

   g. Name any two types of presses.

   h. Draw sketch of a single point cutting tool.

   i. What is indexing?

   j. Briefly explain the principle of electro chemical machining.

SECTION-B

2. Describe the following sands :

   a) Green sand

   b) Dry sand

   c) Loam sand

3. Explain with neat sketch electron beam welding.

4. With a neat sketch explain the process of rolling.

5. Discuss with sketch characteristics of conventional Up and Climb milling.

6. Discuss signature of single point cutting tool nomenclature with neat sketch.

SECTION-C

7. Describe five different types of patterns and indicate the production circumstances in which each would be used.

8. Write short note on :

   a) Submerged Arc Welding

   b) Deep Drawing

   c) Plastic Moulding Machines

   d) Cutting Tool Material.

9. Explain in detail the principle of operation of laser beam machining with the help of neat sketch. Also write advantages, disadvantages and applications of the process.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.