

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (AE-2011 Batch) (Sem.–3rd)
MANUFACTURING PROCESSES
Subject Code : BTAE-304
Paper ID : [A1149]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS 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) For what purpose cores are used in a casting process?
- (b) What is the main advantage of centrifugal casting?
- (c) What is the difference between welding and brazing processes ?
- (d) Name two industrial applications of spot welding.
- (e) What is the main difference between hot rolling and cold rolling ?
- (f) What is the significance of nose angle in a single point cutting tool ?
- (g) What is the difference between boring and drilling operations ?
- (h) Discuss the significance of the term “centreless” in centreless grinding.
- (i) What is the main advantage of LBM process ?
- (j) What is the fundamental difference between EDM and ECM process ?

SECTION-B

2. What is a pattern ? Briefly discuss the various allowances associated with patterns.

3. What is SAW process? Discuss its underlying principle, benefits and limitations.
4. Discuss what is meant by deep drawing ? Discuss the main applications and the underlying principle involved in this process.
5. What is the principle and purpose of cylindrical grinding? Discuss the main benefit of this process.
6. Discuss the main principle, brief procedure and applications of Abrasive Water Jet Machining.

SECTION-C

7. With a neat and labelled diagram, explain the underlying principle, procedural steps to use, advantages and limitations of sand casting process.
8. Name the various commonly occurring welding defects during the use of electric arc welding processes. Discuss their causes and remedial measures to be adopted to eliminate them.
9. Discuss the working principle and applications of Chemical Machining process.