

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

**B.Tech.(ME) (Sem-4)**  
**MANUFACTURING PROCESSES-II**

Subject Code : BTME-405

M.code : 59133

Date of Examination : 13-06-2023

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 machinability? Enlist the variable affecting machinability.
- b) What is the dressing of grinding wheels?
- c) Differentiate between drilling and boring.
- d) What is broaching? Write two advantages of broaching.
- e) What is the difference between press forging and drop forging?
- f) Write the various products of rolling.
- g) What is lathe dog? For what it is used?
- h) With suitable diagram, define deep drawing process.
- i) Enlist the common rolling defects.
- j) State the advantages of use of coolant in machining.

## SECTION-B

2. Differentiate between up milling and down milling.
3. With neat sketches, explain various operations performed on presses.
4. What is indexing? Explain method of simple indexing by means of diagram showing the index head.
5. In a tapered component, let  $d = 70$  mm, length  $(l) = 200$  mm and the amount of taper is  $1/20$ , find the large diameter of taper  $(D)$ .
6. Explain various types of forging defects with their causes and remedies.

## SECTION-C

7. What is shear zone, shear plane and shear angle? Derive the relation for the shear angle  $(\phi)$ .
8. What are high energy rate forming processes? With suitable diagrams explain explosive forming, magnetic pulse forming and electro-hydraulic forming.
9. **Write short note on :**
  - a) Cutting tool material
  - b) Extrusion 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.**