

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

**B.Tech.(ME) (2011 Onwards) (Sem.-5)**  
**COMPUTER AIDED DESIGN AND MANUFACTURING**  
Subject Code : BTME-502  
M.Code : 70603

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) Give the flowchart of basic design process.
- b) What is Geometric Transformation?
- c) What is constructive solid geometry (CSG) in geometric modelling?
- d) What is an interpolant curve?
- e) Define a part program.
- f) What is fixed and floating zero?
- g) What is part family?
- h) Give the data selection systems in CAPP.
- i) Discuss the benefits of FMS.
- j) What is the function of shading in design?

**SECTION-B**

2. Discuss the functions of Software Graphic package.
3. Discuss and two types of Geometric Transformations using suitable 2-D examples.
4. What is a wireframe model and discuss hidden line removal concept in it?
5. Explain the importance of Adaptive control in machining operations.
6. Discuss various part classification and coding systems used in GT.

**SECTION-C**

7.
  - a) What is CAPP and discuss the benefits of CAPP.
  - b) Discuss various types of CAPP systems.
8.
  - a) Discuss the types of manufacturing systems in CIMS.
  - b) Discuss different types of layout considerations of FMS.
9.
  - a) Discuss the parametric representation of B-spline curve.
  - b) Discuss the equation and characteristics of Bezier curve.

**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.**