

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(CE)/(CSE)/ME (Sem-6)

**COMPUTER AIDED DESIGN**

Subject Code : BTME-613-18

M.Code : 79658

Date of Examination : 20-06-2023

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. Write briefly :**

- a) What is Geometric Modelling?
- b) Explain a synthetic curve-using example.
- c) Give the benefits of CAD.
- d) Discuss the concept of Plane Surface.
- e) What are fundamentals of a solid design?
- f) Explain various data transfer formats used in Assembly design?
- g) Give applications of transformation for design engineer.
- h) What is the role of coordinate system in designing of a model?
- i) Explain what is parametric space of a curve?
- j) Define B-spline surface and give its applications.

### SECTION-B

2. Discuss the historical development of Computer Aided design in India.
3. Discuss the representation and characteristics of B-spline curve.
4. Discuss the basic fundamentals of surface design using suitable examples.
5. What do you mean by continuity as well as composite solids and give their applications in CAD?
6. Discuss using example, the construction of a solid geometry using Boolean operations.

### SECTION-C

7. Discuss various types of 2-D Transformations using suitable examples.
8. Discuss the analytical and relational properties of assembly modeling design.
9. Write a short note on Constructive Solid Geometry.

**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.**