

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

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

COMPUTER AIDED DESIGN

Subject Code : BTME-613-18

M.Code : 79658

Date of Examination : 27-05-2024

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) Define CAD.
- (b) Explain what is an Interpolant Curve?
- (c) Give benefits of Geometric Modeling.
- (d) Discuss in brief a Ruled surface.
- (e) What are the advantages of using solid modeling in analysis?
- (f) Explain the concept of parametric representation of curve.
- (g) Give various applications of transformations for design engineer?
- (h) What do you mean by a fully constrained Assembly in CAD?
- (i) Give the applications of Bezier surface.
- (j) Define a wire-frame model.

SECTION-B

2. (a) Give the importance of coordinate system in CAD.
(b) What are orthographic projections?
3. Discuss the representation and characteristics of Bezier curve.
4. Write a short note on parametric space of a Surface and discuss what is Surface of Revolution?
5. Discuss the concept of Constructive Solid Geometry.
6. Discuss the basic differences between Explicit and Implicit equations in CAD.

SECTION-C

7. What is Homogeneous Transformation and discuss various types of 2-D Homogeneous Transformation taking suitable examples?
8. Discuss what is Assembly Modeling and discuss various data transfer formats in it?
9. Discuss the characteristics and functions of sweep and boundary representation in solid modeling.

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.