Roll No. | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(ME) (Sem–5)

COMPUTER AIDED DESIGN AND MANUFACTURING

Subject Code : BTME-502

M.Code : 70603

Date of Examination : 10-06-2023

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. Answer briefly :

a) Discuss the basic traditional CAD design process.

b) Explain STEP graphic standard in CAD.

c) Give the benefits of Geometric Modeling.

d) Discuss the concept of analytical and synthetic surfaces.

e) What are applications of FEM?

f) Explain the concept of combined DNC/CNC system.

g) Give the benefits of GT.

h) What is CAPP and give its benefits.

i) Why CIMs is said to be more flexible than other production systems.

j) What is computer assisted part programming.

SECTION-B

2. Discuss in detail the functions of a graphics package.

3. Discuss in detail the applications of various geometric transformations.

4. Write a short note on hidden line removal method in wire frame model.

5. Discuss in brief the basic principle and general procedure of FEA software.

6. Discuss the CNC machine using block diagram and explain salient features of NC machine tools.

SECTION-C

7. Discuss the various NC motion control systems and explain fixed/floating zero.

8. Discuss the various part classification and coding systems in GT.

9. Discuss the benefits of FMS and explain the various physical components of an FMS.

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.