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

Paper ID : [A2129]

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. How computer helps in design process?

b. What is geometric transformation?

c. What is a wireframe model?

d. What is non-parametric representation of curves?

e. Write the applications of FEM.

f. What is tool length compensation?

g. Write type of codes used in computer assisted part programming.

h. What are part families?

i. Define computer integrated manufacturing system (CIM).

j. Define group technology.

SECTION-B

2. Discuss function and working of the input and output devices.

3. Explain the concept of hidden-line removal and shading.

4. What is FEM? Write its general procedure.

5. Discuss the concept of computer assisted part programming.

6. What is computer aided process planning (CAPP)? Discuss the data selection system in CAPP.

SECTION-C

7. Explain the procedure of parametric representation of B-spline curves.

8. What are NC machine tools? Discuss features, basic components and co-ordinate system of NC machine tools.

9. Discuss the physical components, types and layout considerations of flexible manufacturing system.