KUII NO.

Total No. of Questions: 08]

Total No. of Pages: 02

Paper ID [PE505]

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MAY 2003

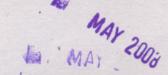
M.Tech. (Sem. - 1st)

COMPUTER AIDED DESIGN AND MANUFACTURING (PE - 505)

Time: 03 Hours Maximum Marks: 100

Instruction to Candidates:

- 1) Attempt any Five questions. MAY 2008
- 2) All questions carry equal marks.



- Q1) With the help of mathematical model, explain the difference between CAD/CAM and Automation.
- Q2) (a) What is the importance of standards in CAD/CAM?
 - (b) How Initial Graphics Exchange Specification (IGES) is differing from Graphical Kernel System (GKS)?
- Q3) (a) Compare 2-dimensional and 3-dimensional wire frame models.
 - (b) Describe the importance of curve and surface modeling in computer aided graphics and design.
- Q4) Describe briefly the following methods of surface modeling with two application examples:
 - (a) Revsurf
 - (b) Tabcyl
- Q5) What is meant by sweep? Discuss in detail the various types of sweep techniques available for 3D geometric construction.
- Q6) A scaling factor of 2 is applied in Y direction and while no scaling is applied in X direction to the line whose end points are at coordinates (1, 3) and (3, 6). The line is to be rotated subsequently through 30° in the counter clockwise direction. Determine the necessary transformation matrix for the operation and the new coordinates of the end points.

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P.T.O.

- Q7) Differentiate between numeric control (NC), computer numerical control (CNC) and direct numerical control (DNC) systems of CAM.
- Q8) Write short note on any two of the following:
 - (a) Fixed and floating zero
 - (b) Assembly and Tolerancing
 - (c) Operating system

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