

IV B.Tech II Semester Supplementary Examinations, Apr/May 2006
COMPUTER GRAPHICS

(Common to Mechanical Engineering and Production Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Write short notes on:
 - (a) Liquid crystal displays
 - (b) Raster scan display system [8+8]
2. (a) Explain and demonstrate with suitable examples“ the even-odd method”of determining the polygon interior points.
 - (b) Explain the flood-fill algorithm for filling polygons. [8+8]
3. (a) Show that 2-D scales and rotations do not commute in general.
 - (b) What are image transformations? Explain. [10+6]
4. (a) What is the utility of segments? Explain the use of segment table for organizing information about the segments.
 - (b) What are the various data structures that are used for storing segments? Comment on their relative merits and demerits. [16]
5. Explain the working of the Sutherland - Hodgeman algorithm for polygonal clipping with the help of suitable example. [16]
6. Explain briefly the transformation steps for obtaining a composite matrix for rotation about an arbitrary axis with the rotation axis projected on to the z-axis [16]
7. (a) Explain the basic concepts of hidden surfaces and line removal methods with suitable examples.
 - (b) Write about z-buffers. [10+6]
8. (a) Write about pipeline and parallel front end architecture.
 - (b) Explain about Bezier curves. [8+8]
