

III B.Tech I Semester Supplementary Examinations, November 2006
COMPUTER GRAPHICS

(Electronics & Computer Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain the concepts of aliasing and antialiasing. How can the effects of aliasing be minimized?
(b) Write short notes on frame buffer. [8+8]
2. Explain the following:
(a) world, screen and normalised coordinates.
(b) 2D graphics primitives. [8+8]
3. (a) Derive the transformation matrix representation for rotation about the origin, ' θ ' degrees, anti-clockwise.
(b) Explain the matrix representations for inverse transformations of the basic transformation techniques. [8+8]
4. Write procedures for creating and closing segments. [16]
5. Explain the Cohen-Sutherland algorithm for finding the category of a line segment. Show clearly how each category is handled by the algorithm. [16]
6. Explain the method to derive the transformation matrix for rotating an object about any arbitrary axis. [16]
7. Write about the following:
(a) Gourand shading.
(b) Painter's algorithm. [8+8]
8. Explain the following:
(a) Simple raster display system
(b) Sweeping method of interpolation. [8+8]
