LAST MOMENT TUITIONS

Computer Graphics

DEC 18

Computer Engineering (Semester 4)

Total marks: 80
Total time: 3 Hours

INSTRUCTIONS
(1) Question 1 is compulsory.
*(2) Attempt any **three** from the remaining questions.*
(3) Draw neat diagrams wherever necessary.

1.a. Compare Raster and Random Scan Techniques . (5 marks)

1.b. What are the disadvantages of DDA algorithm? (5 marks)

1.c. Explain inside outside test used in filling algorithm (5 marks)

1.d. What are Aliasing & Antialiasing? Explain any one Antialiasing method (5 marks)

2.a. Explain Liang Barsky line clipping algorithm. Apply this algorithm to the line with coordinates (35,60) and (80,25) against the window (Xmin, Ymin) = (10,10) and (Xmax ,Ymax) =(50,50)
(10 marks)

2.b. Derive the matrix for 2D rotation about an arbitrary point (10 marks)

3.a. Explain the Cohen-Sutherland line clipping algorithm with suitable example. (10 marks)

3.b. What is meant by Parallel and Perspective Projections? Derive matrix for Perspective projection (10 marks)

4.a. Specify midpoint circle algorithm. using the same ,plot the circle whose radius is 8 units and center is at (10,10) (10 marks)

4.b. Explain any one Polygon clipping algorithm (10 marks)

5.a. Explain Bezier curve with its properties and construct (10 marks)

5.b. Explain Gouraud and Phong Shading along with their advantages and disadvantages. (10 marks)

Q6 Write Short Notes (Any 4)

6.a. Write short note on Depth Buffer method (05 marks)
6.b. Write short note on Halftone and Dithering techniques. (05 marks)
6.c. Write short note on Fractals. (05 marks)
6.d. Write short note on Koch Curve. (05 marks)
6.e. Write short note on Area Subdivision method. (05 marks)