

B. Tech Degree V Semester Examination, November 2008**CS 504 COMPUTER GRAPHICS***(2006 Scheme)*

Time : 3 Hours

Maximum Marks : 100

PART A(Answer ALL questions)(All questions carry EQUAL marks)

(8 x 5 = 40)

- I. (a) Write a short note on logical classification of input devices.
 (b) Explain the attributes of output primitives.
 (c) Write a note on Normalised Device Co-ordinates.
 (d) Describe the concept of midpoint subdivision.
 (e) Write a short note on Octrees.
 (f) Write the concept of vanishing point.
 (g) Define Lamberts Law.
 (h) Write a note on 'RGB Color Model'.

PART B

(4 x 15 = 60)

- II. (a) Write notes on :
 (i) Raster Scan System
 (ii) Random Scan System (8)
 (b) Describe DDA Line Algorithm. (7)
- OR**
- III. (a) Briefly explain the techniques for anti aliasing Lines. (8)
 (b) Explain the Bresenham's Line Algorithm. (7)
- IV. (a) Explain basic 2D Transformations. (8)
 (b) Explain Polygon Clipping Algorithm. (7)
- OR**
- V. (a) Explain any four composite transformations. (8)
 (b) Explain Point Clipping Algorithm. (7)
- VI. (a) Explain the methods for projecting three dimensional objects onto a two dimensional viewing surface. (8)
 (b) Describe the sequences of transformations to align a viewing system with world co-ordinate axes. (7)
- OR**
- VII. (a) Explain Bezier curves and surfaces. (8)
 (b) Explain Fractal Geometry methods. (7)
- VIII. (a) Explain z-buffer method. (8)
 (b) Write a note on Specular Reflection. (7)
- OR**
- IX. Write notes on :
 (i) Gouraud Shading
 (ii) Phong Shading
 (iii) Ray Tracing Algorithm.

(3 x 5 = 15)