

***B. Tech Degree V Semester (Supplementary) Examination,
July 2009***

CS 504 COMPUTER GRAPHICS
(2006 Scheme)

Time: 3 Hours

Maximum Marks: 100

PART A

(Answer all questions)

(8 x 5=40)

- I. a. What do you mean by flood fill algorithm?
b. Define antialiasing. Explain any one antialiasing method.
c. Explain fundamental principle of circle generating algorithms.
d. What do you mean by exterior clipping?
e. Discuss about (i) world co-ordinate system (ii) Physical device co-ordinate system.
f. Mention the fields of A-Buffer.
g. What is meant by flat shading?
h. Mention various types of projections.

PART B

(4 x 15 = 60)

- II. a. Explain the logical classification of input devices. (15)
OR
b. Explain midpoint circle algorithm. Trace the algorithm to draw a circle with radius 30 and circle centre (20,30). (15)
- III. a. What is a homogenous co-ordinate system? Give the homogenous matrix representations for each transformation. (15)
OR
b. Define the terms window, view port and viewing pipeline. Also derive the transformation matrix for window to view port transformation. (15)
- IV. a. What are the properties of Bezier curves and BSpline methods? (15)
OR
b. Write short notes on (i) Blobby objects (ii) Octrees (iii) Quadric surfaces (15)
- V. a. Explain the area subdivision method for hidden surface removal. (10)
b. Write notes on animation. (5)
OR
c. Explain phong shading and Goraud shading. (10)
d. Write short notes on illumination models. (5)

