

**MAY 2006**

**CS-309**

**COMPUTER GRAPHICS**

**(B.Tech Semester - 5th)**

**Time: 03 Hours**

**Maximum Marks : 60**

**Note:-** Section - A is **compulsory**. Attempt any **Four** questions from Section - B. Attempt any **two** questions from Section-C.

**SECTION - A**

**Marks : 2 Each**

- Q1 a) What is Raster Scan system?  
b) What is pixel?  
c) Explain input and output devices?  
d) Explain Breath-First search.  
e) Define "View Space".  
f) Define "Model Space".  
g) How do I rotate 2D point?  
h) How do I find the distance from a point to line?  
i) How do I clip a polygon against a rectangle?  
j) What is the use of computer Graphics?

**SECTION - B**

**Marks : 5 Each**

- Q2. Explain Cohen Sutherland clipping algorithm?  
Q3. How can clipping of primitives of other than straight lines be achieved?  
Q4. What is typical system architecture for a virtual reality system?  
Q5. Write an algorithm to draw a line.  
Q6. Write an algorithm to draw the ellipse.

**SECTION- C**

**Marks : 10 Each**

- Q7. Write a procedure for thick line using Bresenham's algorithm.  
Q8. Find a representation of the chromatic color line from cyan(0,1,1) to yellow (1,1,0) in RGB color space.  
Q9. Write an algorithm to fill the color in any object.