

2316

80

Class-BCA-6th Sem.

Subject -Computer Graphics

Paper-I

Time Allowed : 3 Hours

Maximum Marks :75

Attempt any 5 questions.

1. Define Computer Graphics. Discuss their applications.
2. (a) What do you mean by Composite Transformation? Explain its need with appropriate example.
(b) Explain in detail about the Midpoint Circle Generating algorithm.
3. Explain the working of:
 - (a) Cathode Ray Tube.
 - (b) Plasma Panel Displays.
4. Differentiate between
 - (a) Raster scan and Random scan monitors
 - (b) Rotation, Translation and Scaling.
5. What is Clipping? What are the clipping Operations? Write an algorithm for line clipping.
6. What is the limitation of DDA line generating algorithm? What steps are required to plot a line whose slope is between 0 degree and 45 degree using Bresenham's line drawing method. Also explain Bresenham line drawing algorithm.
7. (a) After translation by 2, perform 60 degree rotation of a triangle (1,1), (2,1) and (1,2) about the point (0,-1).

- (b) What are the steps need to be performed by the system for viewing transformation?
- 8. Write short notes on the following:
 - (i) (a) Graphics Software
 - (b) Resolution
 - (c) Aspect Ratio
- (ii) Write a program in C to draw an ellipse. (9,6)
