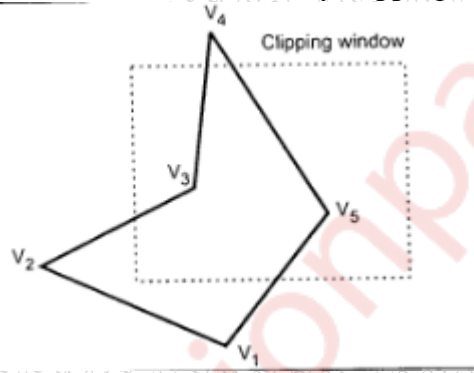


**(3 Hours)**

**[Total marks: 80]**

- N.B.** (1) Question No.1 is **Compulsory**.  
 (2) Attempt any **three** from remaining **five** questions

1. Attempt **Any Four** 20
- (a) Explain in brief the process of bit plane slicing.
  - (b) Deduce the midpoint Ellipse algorithm.
  - (c) Explain Point Clipping..
  - (d) Explain in brief Composite transformation
  - (e) Explain graphics display System.
2. (a) Explain Cohen-Sutherland technique for line clipping 10  
 (b) Discuss the types of projection in computer graphics. 10
3. (a) What are the Fractals? How to determine the fractals dimensions and write the fractal generation procedure for Koch curve. 10  
 (b) For a polygon and clipping window shown in following figure give the list of vertices after each boundary clipping. 10



4. (a) What is histogram? Explain the technique of histogram Equalizations for enhancing an image. Discuss any two spatial domain filter approaches for image enhancement. 10  
 (b) Explain basic components of digital image processing. 10
5. (a) Find the normalization transformation window to viewpoint, with window, lower left corner at (1,1) upper right corner at (3,5) onto a viewpoint with lower left corner at (0,0) and upper right corner at (1/2,1/2). 10  
 (b) Scale the Polygon with co-ordinates A(2,5),B(7,10) and c(10,2) by two units in x direction and two units in y direction. 10
6. (a) Derive Bresenham's line drawing algorithm. Rasterize a line (5,5) to (13,9) 10  
 (b) What is computer Graphics? Explain Elements of Computer Graphics. 10