

(3 Hours)

Total Marks: 80

- N.B:**
- 1. Question No. 1 is compulsory**
 - 2. Attempt any 3 from remaining questions**
 - 3. Assume any suitable data if necessary and justify the assumptions**

- Q.1 Attempt any **Four**. 20
- Give difference between random scan display and raster scan display.
 - Define Aliasing, Describe different antialiasing techniques.
 - Compare DDA and BRESENHAM line drawing algorithm.
 - Explain point clipping algorithm.
 - Give fractal dimension for KOCH curve.
- Q.2 a) Derive formula for mid-point circle algorithm. 10
- b) Given a line AB where A(3,1) and B(0,0) calculate all the points of line AB using DDA algorithm. 10
- Q.3 a) With neat diagram explain Composite transformation. 10
- b) Describe what is Homogeneous coordinates. 10
- Q.4 a) With neat diagram explain window to viewport coordinate transformation. 10
- b) With neat diagram explain Sutherland Hodgman polygon clipping algorithm. 10
- Q.5 a) Define projection, with neat diagram describe planar geometric projection. 10
- b) Describe properties of BEZIER curve. 10
- Q.6 a) Describe various principles of traditional animation. 10
- b) Write short note on Depth buffer algorithm. 10
