

SEC COMP) \ SEM - III \ R-19 \ SH-22 \ 01-11-22

(3 Hours)

Total Marks: 80

QP CODE : 10011857

- 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.

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