

Unit II

- Write the advantages of different fill algos. Explain Flood fill and Boundary fill Algorithms with full descriptions.
- What do you mean by 4 way symmetry and 8 way symmetry of objects ? Write steps to scan-convert a Ellipse sector (0 to 90 degree) using slope method.

Unit III

- Show that the order in which transformations are performed is important, by the transformation of triangle A(1, 0), B(0, 1), C(1, 1), by (a) rotating 45° about the origin and then translating and (b) first translating and then rotating.
- Discuss importance of clipping Algorithms. Explain Sutherland Hodgman Polygon Clipping Algorithm and Cohen Sutherland Clipping Algos with examples.

Unit IV

- (a) How many view planes (at the origin) produce isometric projections of an object ?
(b) Find the equations of the planes forming the view volume for the general parallel projection.
- Draw realistic view of a cube. Discuss Z-buffer and Depth-sorting algorithm in detail to solve the hidden surfaces problem.

Roll No.

Total Pages : 02

CMCQ/D-23

24044

COMPUTER GRAPHICS AND ANIMATION
MS-20-32 (CBCS)

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

- Differentiate the following :
 - Interactive and Passive graphics
 - Raster scan and Random scan
 - Morphing and Tweening
 - Inking and Painting.

Unit I

- What do you mean by hard copy devices and display devices ? Explain in detail impact and non-impact printers.
- How are colors produced in display devices ? Is the refreshing necessary in CRT ? Explain beam penetration method in detail.