

Unit II

4. Write the advantages of different fill algos. Explain Flood fill and Boundary fill Algorithms with full descriptions.
5. 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

6. 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.
7. Discuss importance of clipping Algorithms. Explain Sutherland Hodgman Polygon Clipping Algorithm and Cohen Sutherland Clipping Algos with examples.

Unit IV

8. (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.
9. 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

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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.

1. Differentiate the following :

- (i) Interactive and Passive graphics
- (ii) Raster scan and Random scan
- (iii) Morphing and Tweening
- (iv) Inking and Painting.

Unit I

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