

BT-8/M-24

48246

COMPUTER GRAPHICS

Paper-PE-CS-A404A

Time Allowed : 3 Hours]

[Maximum Marks : 75

Note : Attempt five questions in all, selecting at least one question from each Unit. All questions carry equal marks.

UNIT-I

1. Write the Bresenham's circle drawing algorithm and by making use of Bresenham's algorithm find the coordinates of the pixels that lie on a line segment having the endpoints (3, 4) and (6, 9). 15
2. Explain the following:
 - (a) Working of Light pen
 - (b) Beam Penetration CRT. 15

UNIT-II

3. Explain Port mapping and Transformation with example. 15
4. Explain viewing transformation Pipeline with appropriate example. 15

UNIT-III

5. Write Liang-Barsky line clipping algorithm. Compare it with C-S line clipping algorithm. 15
6. (a) Differentiate between Curve clipping and Text clipping.
- (b) Write a short note on Vanishing point of an Image and how do you find Vanishing point of an Image ? 15

UNIT-IV

7. (a) What is the difference between interpolation and approximation splines? Explain.
- (b) Explain Beizer curves and surfaces and its properties. 15
8. Discuss Painter's Algorithm for Visibility problem of distant object in an Image. 15