

Roll No.

Total Pages : 02

BT-8/D-24

48246

COMPUTER GRAPHICS

PE-CS-A404 A

Time : Three 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 find the coordinates of the pixels that lie on a line segment having the endpoints (4, 5) and (7,) by use of Bresenham's algorithm. 15

2. Explain the following : 15

- (a) Working of light pen
- (b) Beam penetration CRT.

Unit II

3. Explain port mapping and transformation with example. 15

(7-17/14)L-48246

P.T.O.

4. Explain viewing transformation pipeline with appropriate example. 15

Unit III

5. Write C-S line clipping algorithm and compare it with Liang-Barsky 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 Bezier curves and surfaces and its properties. 15
8. Discuss Painter's algorithm for visibility problem of distant object in an image. 15