

COMPUTER GRAPHICS

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Time : Three hours

Maximum : 100 marks

## PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1. Write the equation for line and explain.
2. What do you mean by thickening a line segment?
3. What are normalized device coordinates? Explain.
4. Explain about various line-style primitives.
5. What are Polygons? Explain.
6. What is antialiasing? Explain.
7. Explain about composite transformation.
8. Give matrix representation for shearing an image by  $x$  axis = 2,  $y$  axis = 3.
9. What is windowing? Explain.
10. What is a Region code? Explain.

## PART B — (4 × 10 = 40 marks)

Answer any FOUR questions.

11. What are Line attributes? Explain.
12. Explain about Random Scan and Raster scan systems.
13. Explain polygon interfacing algorithm.
14. What are Homogeneous matrix representation? Explain.
15. Explain how to add clipping to the system.
16. Write short notes on :
  - (a) Frame buffers
  - (b) Pixels.

## PART C — (2 × 15 = 30 marks)

Answer any TWO questions.

17. Explain with a neat diagram the working principle of CRT and color Monitors.
18. What are the basic 2D transformation? Explain.
19. Explain about Cohen - Sutherland Algorithm.