2017

COMPUTER SCIENCE & TECHNOLOGY

PAPER : CSIT-3.5

COMPUTER GRAPHICS

FULL MARKS: 80 Time : 3 hours

{ The figures in the margin indicate full marks for the question.}

1. What is display device? Explain about direct view storage tube. 2+5=7
2. Explain about plasma panels. 6

Or

Explain about cathode ray tube with diagram.

3. What is pixel? How are the pictures formed in raster scan display? 1+2=3
4. Write about DDA algorithm. 4
5. Explain about mid-point circle algorithm. 6

Or

Consider the line with end point (20, 10) and (30, 18) and the line has a slope of 0.8. Then find successive pixel position along the line path from the decision parameters.

6. What is character generation technique? 2
7. What are the components of other transformation? 2
8. Explain about 2D reflection transformation about axes 6

Or

Explain about 2D shear transformation.

9. Write about the steps of pivot point rotation with showing diagram. 4
10. Write the matrix form of composite translation transformation. Write about affine transformation. 2+3=5
11. Distinguish between following(any five): 3x5=15
    a. Laser printer and plotter
    b. GKS and PHIGS
    c. Flood fill and boundary fill algorithm
    d. Rotation and translation
    e. Parallel and perspective projection
    f. Raster scan and random scan display
    g. General programming packages and special purpose application packages.
12. Write about window-to-viewport. 5
13. Explain about Cohen-Sutherland line clipping algorithm with diagram. 5
14. What is 3D? Write about exploded and cutaway views and surface rendering. 1+2+2=5
15. Explain about 3D rotation transformation. 5

Or

Write the difference between 3D shear and reflection.

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