

Computer Graphics

Lpu Guide # <https://lpuguide.com>

1. Define resolution
2. what are disadvantages of DVST?
3. write the name of various header files for the OpenGL core library that we need to include in graphic program?
4. what is the use of glutInit function in OpenGL? write its syntax
5. discuss the concept of DDA line drawing algorithm
6. differentiate between window and viewport
7. what is composite 3D transformation?
8. what is the concept of model view matrix
9. what is hidden surface problem
10. what is back face and how it is removed?

PART-B

2 a) differentiate between working of raster scan displays and random scan displays.

or

b) (i) explain briefly the basic working of cathode ray tube

(ii) explain the beam penetration method for displaying color pictures

3 a) use the glColor3f function to set up a color table for an input set of color values

or

b) (i) discuss the concept of display list in detail . also discuss the concept of timer function

(ii) write program to show line patterns are created in OpenGL

4 a) explain the Cohen-Sutherland line clipping algorithm in detail

or

b) (i) what do you mean by viewing? also discuss the concept of window to viewport transformation

(ii) how a polygon is clipped using weiler-atherton algorithm? explain briefly.

5 a) discuss the various 3d transformations

or

b)(i) explain how orthographic projection is implemented in opengl?

(ii) explain how rotation is done in 3d? write all the three rotation matrices

6 a) discuss the concept of BSP tree method. also discuss the concept of gouraud and phong shading

or

b)(i) explain the Z buffer algorithm

(ii) how does scan line coherence help to reduce computation?