

Important Lab Questions for Computer Graphics and Gaming

1. Write a C Program to implement the DDA and Bresenham line drawing algorithm
2. Write a C Program to implement Bresenham and Midpoint Circle drawing algorithm
3. Write a C program to implement flood fill algorithm for a convex polygon. (Accept polygon from user)
4. Write a C program to implement Boundary fill algorithm for a convex polygon. (Accept polygon from user)
5. Write a C program to implement Edge fill algorithm for a convex polygon. (Accept polygon from user)
6. Write a C program to implement fence fill algorithm for a convex polygon. (Accept polygon from user)
7. Write a C++ program to implement Scan Line fill algorithm for a polygon having five vertices.
8. Write a C++ program to implement Scan Line fill algorithm for a concave polygon having five vertices.
9. Write a C program to perform Reflection about X-axis and Reflection about Y-axis in 2D by dividing screen into four quadrants.
10. Write a C program to perform rotation about origin and rotation about fix point in 2D by dividing screen into four quadrants.
11. Write a C program to perform Reflection about origin and Reflection about a line $Y=X$ in 2D by dividing screen into four quadrants.
12. Write a program to graphically implement the X-shear and Y-shear transformations.
13. Write a program to perform the following: Polygon co-ordinates are A (7,3), B (9, 3), C (9,5) and D (7,5). We have done scaling $S_x = S_y = 2$ and reflection through origin and translation by 1 in both x of y-direction. display the original figure.
14. Write a C program to perform scaling and Translation in 2D by dividing screen into four quadrants.
15. Write a C program to perform scaling and Rotation in 2D by dividing screen into four quadrants.
16. Write a C program to perform Translation and Rotation in 2D by dividing screen into four quadrants.

17. Write a C program to perform shearing and Rotation in 2D by dividing screen into four quadrants.
18. Write a C/ C++ program to implement Sutherland Hodgeman polygon clipping algorithm.
19. Write a C/C++ program to implement Cohen Sutherland line clipping algorithm.
20. Write a C/C++ program to implement Midpoint line clipping algorithm.
21. Write a C/C++ program to implement Bezier curve having 4 points with midpoint method.
[Upto 4 iterations]
22. Write a C/C++ program to implement Koch curve [Upto 3 iterations]
23. Write a C/C++ program to implement fractal line [Upto 10 iterations]
24. Write a C/C++ program to implement various animation using Mid-point / Bresenham circle and /or DDA / Bresenham line drawing algorithm.

