**Lab Taks-1**

|  |
| --- |
| **Question-**  Draw the object- |
| **Graph Plot (Picture)-** |
| **Code-**  **#include <windows.h> // for MS Windows**  **#include <GL/glut.h> // GLUT, include glu.h and gl.h**  **/\* Handler for window-repaint event. Call back when the window first appears and**  **whenever the window needs to be re-painted. \*/**  **void display() {**  **glClearColor(1.0f, 1.0f, 1.0f, 1.0f); // Set background color to black and opaque**  **glClear(GL\_COLOR\_BUFFER\_BIT); // Clear the color buffer (background)**  **glLineWidth(10.0);**  **// Draw a Red 1x1 Square centered at origin**  **glColor3f(0.0f,0.0f,0.0f);**  **glBegin(GL\_LINES);**  **glVertex2f(0.0f,0.0f);**  **glVertex2f(5.0f,0.0f);**  **glVertex2f(5.0f,0.0f);**  **glVertex2f(5.0f,5.0f);**  **glVertex2f(5.0f,5.0f);**  **glVertex2f(0.0f,5.0f);**  **glVertex2f(0.0f,5.0f);**  **glVertex2f(0.0f,0.0f);**  **glEnd();**  **glFlush(); // Render now**  **}**  **/\* Main function: GLUT runs as a console application starting at main() \*/**  **int main(int argc, char\*\* argv) {**  **glutInit(&argc, argv); // Initialize GLUT**  **glutCreateWindow("OpenGL Setup Test"); // Create a window with the given title**  **glutInitWindowSize(320, 320);**  **gluOrtho2D(-6.0,6.0,-6.0,6.0); //resize the axis size**  **glutDisplayFunc(display); // Register display callback handler for window re-paint**  **glutMainLoop(); // Enter the event-processing loop**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-** |

|  |
| --- |
| **Question-**  Draw the object- |
| **Graph Plot (Picture)-** |
| **Code-**  **#include <windows.h> // for MS Windows**  **#include <GL/glut.h> // GLUT, include glu.h and gl.h**  **/\* Handler for window-repaint event. Call back when the window first appears and**  **whenever the window needs to be re-painted. \*/**  **void display() {**  **glClearColor(1.0f, 1.0f, 1.0f, 1.0f); // Set background color to black and opaque**  **glClear(GL\_COLOR\_BUFFER\_BIT); // Clear the color buffer (background)**  **glLineWidth(10.0);**  **// Draw a Red 1x1 Square centered at origin**  **glColor3f(1.0f,0.0f,0.0f);**  **glBegin(GL\_POLYGON);**  **glVertex2f(0.0f,0.0f);**  **glVertex2f(5.0f,0.0f);**  **glVertex2f(4.0f,5.0f);**  **glVertex2f(1.0f,5.0f);**  **glEnd();**  **glFlush(); // Render now**  **}**  **/\* Main function: GLUT runs as a console application starting at main() \*/**  **int main(int argc, char\*\* argv) {**  **glutInit(&argc, argv); // Initialize GLUT**  **glutCreateWindow("OpenGL Setup Test"); // Create a window with the given title**  **glutInitWindowSize(320, 320);**  **gluOrtho2D(-6.0,6.0,-6.0,6.0); //resize the axis size**  **glutDisplayFunc(display); // Register display callback handler for window re-paint**  **glutMainLoop(); // Enter the event-processing loop**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-** |

|  |
| --- |
| **Question-**  Draw the object- |
| **Graph Plot (Picture)-** |
| **Code-**  **#include <windows.h> // for MS Windows**  **#include <GL/glut.h> // GLUT, include glu.h and gl.h**  **/\* Handler for window-repaint event. Call back when the window first appears and**  **whenever the window needs to be re-painted. \*/**  **void display() {**  **glClearColor(1.0f, 1.0f, 1.0f, 1.0f); // Set background color to black and opaque**  **glClear(GL\_COLOR\_BUFFER\_BIT); // Clear the color buffer (background)**  **glLineWidth(2.0);**  **// Draw a Red 1x1 Square centered at origin**  **glColor3f(0.0f,0.0f,0.0f); //For Lines**  **glBegin(GL\_LINES);**  **glVertex2f(0.0f,1.9f);**  **glVertex2f(4.0f,1.9f);**  **glVertex2f(0.9f,6.0f);**  **glVertex2f(0.9f,0.0f);**  **glEnd();**  **glColor3f(1.0f,0.0f,0.0f); //For rectangle**  **glBegin(GL\_POLYGON);**  **glVertex2f(0.0f,2.0f);**  **glVertex2f(0.8f,2.0f);**  **glVertex2f(0.8f,2.8f);**  **glVertex2f(0.0f,2.8f);**  **glEnd();**  **glColor3ub(128,0,128); //First Triangle**  **glBegin(GL\_TRIANGLES);**  **glVertex2f(0.0f,1.0f);**  **glVertex2f(0.8f,0.2f);**  **glVertex2f(0.8f,1.8f);**  **glEnd();**  **glColor3f(1.0f,1.0f,0.0f); //Second Triangle**  **glBegin(GL\_TRIANGLES);**  **glVertex2f(1.0f,0.8f);**  **glVertex2f(2.0f,0.8f);**  **glVertex2f(1.5f,1.8f);**  **glEnd();**  **glColor3f(0.0f,1.0f,0.0f); //For Arrow**  **glBegin(GL\_QUADS);**  **glVertex2f(1.0f,3.0f);**  **glVertex2f(2.6f,3.0f);**  **glVertex2f(2.6f,4.0f);**  **glVertex2f(1.0f,4.0f);**  **glEnd();**  **glColor3f(0.0f,1.0f,0.0f); //For Arrow**  **glBegin(GL\_TRIANGLES);**  **glVertex2f(2.6f,4.6f);**  **glVertex2f(2.6f,2.4f);**  **glVertex2f(3.2f,3.5f);**  **glEnd();**  **glFlush(); // Render now**  **}**  **/\* Main function: GLUT runs as a console application starting at main() \*/**  **int main(int argc, char\*\* argv) {**  **glutInit(&argc, argv); // Initialize GLUT**  **glutCreateWindow("OpenGL Setup Test"); // Create a window with the given title**  **glutInitWindowSize(320, 320);**  **gluOrtho2D(-6.0,6.0,-6.0,6.0); //resize the axis size**  **glutDisplayFunc(display); // Register display callback handler for window re-paint**  **glutMainLoop(); // Enter the event-processing loop**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-** |