**Lab Taks-4**

Submission Guidelines-

* Rename the file to your id only. If your id is 18-XXXXX-1, then the file name must be 18-XXXXX-1.docx.
* Must submit within time that will be discussed in class VUES to the section named Lab Tak-4
* Must include resources for all the section in the table

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| **Question- 1**  Draw the scenario of a traffic signal |
| **Graph Plot (Picture)-**  **(Not Needed)** |
| **Code-**  **#include <windows.h>**  **#include <GL/glut.h>**  **void initGL() {**  **glClearColor(0.0f, 1.60f, 0.0f, 0.0f);**  **}**  **void display() {**  **glClear(GL\_COLOR\_BUFFER\_BIT);**  **glBegin(GL\_QUADS); //road**  **glColor3f(0.0f, 0.0f, 0.0f);**  **glVertex2f(1.3f, -0.5f);**  **glVertex2f(-1.3f, -0.5f);**  **glVertex2f(-1.3f, .0f);**  **glVertex2f(1.3f, .0f);**  **glBegin(GL\_QUADS); //xdot1**  **glColor3f(1.0f, 1.0f, 1.0f);**  **glVertex2f(-0.9f, -0.23f);**  **glVertex2f(-1.0f, -0.23f);**  **glVertex2f(-1.0f, -0.27f);**  **glVertex2f(-0.9f, -0.27f);**  **glBegin(GL\_QUADS); //xdot2**  **glColor3f(1.0f, 1.0f, 1.0f);**  **glVertex2f(-0.7f, -0.23f);**  **glVertex2f(-0.8f, -0.23f);**  **glVertex2f(-0.8f, -0.27f);**  **glVertex2f(-0.7f, -0.27f);**  **glBegin(GL\_QUADS); //xdot3**  **glColor3f(1.0f, 1.0f, 1.0f);**  **glVertex2f(-0.5f, -0.23f);**  **glVertex2f(-0.6f, -0.23f);**  **glVertex2f(-0.6f, -0.27f);**  **glVertex2f(-0.5f, -0.27f);**  **glBegin(GL\_QUADS); //xdot4**  **glColor3f(1.0f, 1.0f, 1.0f);**  **glVertex2f(-0.3f, -0.23f);**  **glVertex2f(-0.4f, -0.23f);**  **glVertex2f(-0.4f, -0.27f);**  **glVertex2f(-0.3f, -0.27f);**  **glBegin(GL\_QUADS); //xdot5**  **glColor3f(1.0f, 1.0f, 1.0f);**  **glVertex2f(-0.1f, -0.23f);**  **glVertex2f(-0.2f, -0.23f);**  **glVertex2f(-0.2f, -0.27f);**  **glVertex2f(-0.1f, -0.27f);**  **glBegin(GL\_QUADS); //xdot6**  **glColor3f(1.0f, 1.0f, 1.0f);**  **glVertex2f(0.1f, -0.23f);**  **glVertex2f(0.0f, -0.23f);**  **glVertex2f(0.0f, -0.27f);**  **glVertex2f(0.1f, -0.27f);**  **glBegin(GL\_QUADS); //xdot7**  **glColor3f(1.0f, 1.0f, 1.0f);**  **glVertex2f(0.3f, -0.23f);**  **glVertex2f(0.2f, -0.23f);**  **glVertex2f(0.2f, -0.27f);**  **glVertex2f(0.3f, -0.27f);**  **glBegin(GL\_QUADS); //xdot8**  **glColor3f(1.0f, 1.0f, 1.0f);**  **glVertex2f(0.5f, -0.23f);**  **glVertex2f(0.4f, -0.23f);**  **glVertex2f(0.4f, -0.27f);**  **glVertex2f(0.5f, -0.27f);**  **glBegin(GL\_QUADS); //xdot9**  **glColor3f(1.0f, 1.0f, 1.0f);**  **glVertex2f(0.7f, -0.23f);**  **glVertex2f(0.6f, -0.23f);**  **glVertex2f(0.6f, -0.27f);**  **glVertex2f(0.7f, -0.27f);**  **glBegin(GL\_QUADS); //xdot10**  **glColor3f(1.0f, 1.0f, 1.0f);**  **glVertex2f(0.9f, -0.23f);**  **glVertex2f(0.8f, -0.23f);**  **glVertex2f(0.8f, -0.27f);**  **glVertex2f(0.9f, -0.27f);**  **glBegin(GL\_QUADS); //xdot11**  **glColor3f(1.0f, 1.0f, 1.0f);**  **glVertex2f(1.1f, -0.23f);**  **glVertex2f(1.0f, -0.23f);**  **glVertex2f(1.0f, -0.27f);**  **glVertex2f(1.1f, -0.27f);**  **glBegin(GL\_QUADS); //traffic post1**  **glColor3f(1.0f, 1.0f, 1.0f);**  **glVertex2f(0.35f, 0.4f);**  **glVertex2f(0.39f, 0.4f);**  **glVertex2f(0.40f, -0.0f);**  **glVertex2f(0.34f, -0.0f);**  **glBegin(GL\_QUADS); //traffic light bg1**  **glColor3f(1.0f, 1.0f, 1.0f);**  **glVertex2f(0.35f, 0.4f);**  **glVertex2f(0.14f, 0.4f);**  **glVertex2f(0.14f, 0.3f);**  **glVertex2f(0.35f, 0.3f);**  **glBegin(GL\_QUADS); //red**  **glColor3f(1.0f, 0.0f, 0.0f);**  **glVertex2f(0.35f, 0.375f);**  **glVertex2f(0.3f, 0.375f);**  **glVertex2f(0.3f, 0.325f);**  **glVertex2f(0.35f, 0.325f);**  **glBegin(GL\_QUADS); //yellow**  **glColor3f(1.0f, 1.0f, 0.0f);**  **glVertex2f(0.28f, 0.375f);**  **glVertex2f(0.23f, 0.375f);**  **glVertex2f(0.23f, 0.325f);**  **glVertex2f(0.28f, 0.325f);**  **glBegin(GL\_QUADS); //green**  **glColor3f(0.0f, 0.90f, 0.0f);**  **glVertex2f(0.21f, 0.375f);**  **glVertex2f(0.16f, 0.375f);**  **glVertex2f(0.16f, 0.325f);**  **glVertex2f(0.21f, 0.325f);**  **glBegin(GL\_QUADS); //traffic post2**  **glColor3f(1.0f, 1.0f, 1.0f);**  **glVertex2f(-0.485f, -0.1f);**  **glVertex2f(-0.525f, -0.1f);**  **glVertex2f(-0.535f, -0.5f);**  **glVertex2f(-0.475f, -0.5f);**  **glEnd();**  **glFlush();**  **}**  **int main(int argc, char\*\* argv) {**  **glutInit(&argc, argv);**  **glutInitWindowSize(450, 450);**  **glutCreateWindow("traffic signal");**  **glutInitWindowPosition(500, 500);**  **glutDisplayFunc(display);**  **initGL();**  **glutMainLoop();**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-** |