**Lab Taks-3**

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-3
* Must include resources for all the section in the table

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| **Question- 1**  Draw five storied building with windows and a front door |
| **Graph Plot (Picture)-** |
| **Code-**  **#include <windows.h>**  **#include <GL/glut.h>**  **#include <math.h>**  **void House()**  **{**  **//border**  **glBegin(GL\_POLYGON);**  **glColor3ub(251, 254, 80);**  **glVertex2f(-26,-13);**  **glVertex2f(-26,46);**  **glVertex2f(-10,46);**  **glVertex2f(-10,-13);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(207, 25, 114);**  **glVertex2f(-28,46);**  **glVertex2f(-28,50);**  **glVertex2f(-8,50);**  **glVertex2f(-8,46);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(131, 131, 131);**  **glVertex2f(-26,44);**  **glVertex2f(-26,46);**  **glVertex2f(-10,46);**  **glVertex2f(-10,44);**  **glEnd();**  **//5**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-24,38);**  **glVertex2f(-24,42);**  **glVertex2f(-20,42);**  **glVertex2f(-20,38);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-24.5,37);**  **glVertex2f(-24.5,38);**  **glVertex2f(-19.5,38);**  **glVertex2f(-19.5,37);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-16,38);**  **glVertex2f(-16,42);**  **glVertex2f(-12,42);**  **glVertex2f(-12,38);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-16.5,37);**  **glVertex2f(-16.5,38);**  **glVertex2f(-11.5,38);**  **glVertex2f(-11.5,37);**  **glEnd();**  **//4**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-24,30);**  **glVertex2f(-24,34);**  **glVertex2f(-20,34);**  **glVertex2f(-20,30);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-24.5,29);**  **glVertex2f(-24.5,30);**  **glVertex2f(-19.5,30);**  **glVertex2f(-19.5,29);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-16,30);**  **glVertex2f(-16,34);**  **glVertex2f(-12,34);**  **glVertex2f(-12,30);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-16.5,29);**  **glVertex2f(-16.5,30);**  **glVertex2f(-11.5,30);**  **glVertex2f(-11.5,29);**  **glEnd();**  **//3**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-24,22);**  **glVertex2f(-24,26);**  **glVertex2f(-20,26);**  **glVertex2f(-20,22);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-24.5,21);**  **glVertex2f(-24.5,22);**  **glVertex2f(-19.5,22);**  **glVertex2f(-19.5,21);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-16,22);**  **glVertex2f(-16,26);**  **glVertex2f(-12,26);**  **glVertex2f(-12,22);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-16.5,21);**  **glVertex2f(-16.5,22);**  **glVertex2f(-11.5,22);**  **glVertex2f(-11.5,21);**  **glEnd();**  **//2**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-24,14);**  **glVertex2f(-24,18);**  **glVertex2f(-20,18);**  **glVertex2f(-20,14);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-24.5,13);**  **glVertex2f(-24.5,14);**  **glVertex2f(-19.5,14);**  **glVertex2f(-19.5,13);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-16,14);**  **glVertex2f(-16,18);**  **glVertex2f(-12,18);**  **glVertex2f(-12,14);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-16.5,13);**  **glVertex2f(-16.5,14);**  **glVertex2f(-11.5,14);**  **glVertex2f(-11.5,13);**  **glEnd();**  **//1**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-24,6);**  **glVertex2f(-24,10);**  **glVertex2f(-20,10);**  **glVertex2f(-20,6);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-24.5,5);**  **glVertex2f(-24.5,6);**  **glVertex2f(-19.5,6);**  **glVertex2f(-19.5,5);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-16,6);**  **glVertex2f(-16,10);**  **glVertex2f(-12,10);**  **glVertex2f(-12,6);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-16.5,5);**  **glVertex2f(-16.5,6);**  **glVertex2f(-11.5,6);**  **glVertex2f(-11.5,5);**  **glEnd();**  **//door**  **glBegin(GL\_POLYGON);**  **glColor3ub(207, 25, 114);**  **glVertex2f(-22,-2);**  **glVertex2f(-20,2);**  **glVertex2f(-16,2);**  **glVertex2f(-14,-2);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(131, 131, 131);**  **glVertex2f(-22,-3);**  **glVertex2f(-22,-2);**  **glVertex2f(-14,-2);**  **glVertex2f(-14,-3);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(169,78,15);**  **glVertex2f(-21,-10);**  **glVertex2f(-21,-3);**  **glVertex2f(-20,-3);**  **glVertex2f(-20,-10);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(169,78,15);**  **glVertex2f(-16,-10);**  **glVertex2f(-16,-3);**  **glVertex2f(-15,-3);**  **glVertex2f(-15,-10);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(221, 138, 16);**  **glVertex2f(-20,-10);**  **glVertex2f(-20,-3);**  **glVertex2f(-16,-3);**  **glVertex2f(-16,-10);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(32, 29, 24);**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r= -0.7;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x-19.2,y-6.7);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub( 66, 40, 5 );**    **glVertex2f(-26,-13);**  **glVertex2f(-26,-10);**  **glVertex2f(-10,-10);**  **glVertex2f(-10,-13);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(197, 194, 189);**  **glVertex2f(-21.5,-12);**  **glVertex2f(-21,-10);**  **glVertex2f(-15,-10);**  **glVertex2f(-14.5,-12);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(153, 148, 140);**  **glVertex2f(-21.5,-13);**  **glVertex2f(-21.5,-12);**  **glVertex2f(-14.5,-12);**  **glVertex2f(-14.5,-13);**  **glEnd();**  **}**  **void display()**  **{**  **glClearColor(1,1,1,1);**  **glClear(GL\_COLOR\_BUFFER\_BIT);**  **House();**  **glFlush();**  **}**  **int main(int argc, char\*\* argv)**  **{**  **glutInit(&argc, argv);**  **glutCreateWindow("OpenGL Scnery");**  **glutInitWindowSize(320,320);**  **glutDisplayFunc(display);**  **gluOrtho2D(-60,60,-60,60);**  **glutMainLoop();**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-** |

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| **Question- 2**  Draw a tree |
| **Graph Plot (Picture)-** |
| **Code-**  **#include <windows.h>**  **#include <GL/glut.h>**  **#include <math.h>**  **void Tree()**  **{**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(40, 161, 32 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=51-41.1;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+25.37,y+41.1);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(29, 146, 21 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=45-37.57;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+17.4,y+37.57);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(32, 176, 23);**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=45.21-39.55;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+32,y+39.5);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(34, 147, 27 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=36.39-27.67;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+12.61,y+27.67);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(24, 137, 17 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=34.3-28.42;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+18.45,y+28.42);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(21, 146, 13 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=27.5-23.13;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+5.16,y+23.13);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(22, 164, 12 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=29.57-22.92;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+9.53,y+22.92);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(29, 156, 21 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=29.94-23.7;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+16.15,y+23.7);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(21, 126, 14 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=27.44-19.84;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+16.48,y+19.84);**  **}**  **glEnd();//**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(18,138,10);**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=34.31-29.72;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+26.44,y+29.72);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(18,138,10);**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=28.73-25.33;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+25.1,y+25.33);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(36, 153, 28);**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=28.7-24.17;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+29.72,y+24.17);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(21, 152, 13 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=22.02-17.13;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+33.84,y+17.13);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(36, 153, 28);**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=22.36-18.14;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+40.72,y+18.14);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(21, 152, 13 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=30.58-24.21;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+42.65,y+24.21);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(33, 158, 24 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=31.9-24.32;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+36.27,y+24.32);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(30, 160, 22 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=38.3-30;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+35,y+30);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(92, 69, 14);**  **glVertex2f(22,-12);**  **glVertex2f(22,14);**  **glVertex2f(28,14);**  **glVertex2f(28,-12);**  **glEnd();**  **glColor3ub(101, 76, 14);**  **glBegin(GL\_POLYGON);**  **glVertex2f(22,12);**  **glVertex2f(15.9,15.65);**  **glVertex2f(21.19,15.45);**  **glVertex2f(23.5,13.84);**  **glEnd();**  **glColor3ub(109, 83, 18);**  **glBegin(GL\_POLYGON);**  **glVertex2f(23.52,13.84);**  **glVertex2f(25.58,21.19);**  **glVertex2f(27.91,20.69);**  **glVertex2f(26,14);**  **glEnd();**  **glColor3ub(101, 76, 14);**  **glBegin(GL\_POLYGON);**  **glVertex2f(26,14);**  **glVertex2f(29.89,16.7);**  **glVertex2f(30.7,13.9);**  **glVertex2f(28,12);**  **glEnd();**  **}**  **void display()**  **{**  **glClearColor(1,1,1,1);**  **glClear(GL\_COLOR\_BUFFER\_BIT);**  **Tree();**  **glFlush();**  **}**  **int main(int argc, char\*\* argv)**  **{**  **glutInit(&argc, argv);**  **glutCreateWindow("OpenGL Scnery");**  **glutInitWindowSize(320,320);**  **glutDisplayFunc(display);**  **gluOrtho2D(-60,60,-60,60);**  **glutMainLoop();**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-** |

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| **Question- 3**  Draw a lamppost with black background |
| **Graph Plot (Picture)-** |
| **Code-**  **#include <windows.h>**  **#include <GL/glut.h>**  **#include <math.h>**  **void StreetLamp()**  **{**  **//3**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142);**  **glVertex2f(164,45.9);**  **glVertex2f(164,43.9);**  **glVertex2f(177.8,43.9);**  **glVertex2f(177.8,45.9);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3f(1,1,0);**  **glVertex2f(166,32);**  **glVertex2f(164,43.9);**  **glVertex2f(177.8,43.9);**  **glVertex2f(176,32);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(166,30);**  **glVertex2f(166,32);**  **glVertex2f(176,32);**  **glVertex2f(176,30);**  **glEnd();**  **//1**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142);**  **glVertex2f(121.9,45.9);**  **glVertex2f(121.9,43.9);**  **glVertex2f(136.4,43.9);**  **glVertex2f(136.4,45.9);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3f(1,1,0);**  **glVertex2f(124,32);**  **glVertex2f(121.9,43.9);**  **glVertex2f(136.4,43.9);**  **glVertex2f(134,32);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(124,30);**  **glVertex2f(124,32);**  **glVertex2f(134,32);**  **glVertex2f(134,30);**  **glEnd();**  **//2**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142);**  **glVertex2f(142.2,54.2);**  **glVertex2f(142.2,56.2);**  **glVertex2f(157.8,56.2);**  **glVertex2f(157.8,54.2);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3f(1,1,0);**  **glVertex2f(144.3,42.3);**  **glVertex2f(142.2,54.2);**  **glVertex2f(157.8,54.4);**  **glVertex2f(155.9,42.2);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142);**  **glVertex2f(144.3,40.2);**  **glVertex2f(144.3,42.3);**  **glVertex2f(155.9,42.3);**  **glVertex2f(155.9,40.2);**  **glEnd();**  **//m**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(148.4,-11.8);**  **glVertex2f(148.5,40.2);**  **glVertex2f(151.4,40.2);**  **glVertex2f(151.3,-11.8);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(145,-15);**  **glVertex2f(144.9,-11.9);**  **glVertex2f(154.9,-11.9);**  **glVertex2f(155,-15);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(142.8,-18.8);**  **glVertex2f(142.8,-15);**  **glVertex2f(157.1,-15);**  **glVertex2f(157.1,-18.8);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(170,26);**  **glVertex2f(170,30);**  **glVertex2f(172,30);**  **glVertex2f(172,23.01);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(128,23.01);**  **glVertex2f(130,26);**  **glVertex2f(170,26);**  **glVertex2f(172,23.01);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(124,30);**  **glVertex2f(134,32);**  **glVertex2f(134,32);**  **glVertex2f(124,30);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(128,23.01);**  **glVertex2f(128,30);**  **glVertex2f(130,30);**  **glVertex2f(130,26);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(170,45);**  **glVertex2f(170,48);**  **glVertex2f(172,48);**  **glVertex2f(172,45);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(128,45);**  **glVertex2f(128,48);**  **glVertex2f(130,48);**  **glVertex2f(130,45);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(149,56);**  **glVertex2f(149,59);**  **glVertex2f(151,59);**  **glVertex2f(151,56);**  **glEnd();**  **}**  **void display()**  **{**  **glClearColor(0,0,0,0);**  **glClear(GL\_COLOR\_BUFFER\_BIT);**  **StreetLamp();**  **glFlush();**  **}**  **int main(int argc, char\*\* argv)**  **{**  **glutInit(&argc, argv);**  **glutCreateWindow("OpenGL Scnery");**  **glutInitWindowSize(320,320);**  **glutDisplayFunc(display);**  **gluOrtho2D (120,200,-20,70);**  **glutMainLoop();**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-** |

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| **Question- 4**  Draw a bench |
| **Graph Plot (Picture)-** |
| **Code-**  **#include <windows.h>**  **#include <GL/glut.h>**  **#include <math.h>**  **void Bench()**  **{**  **glBegin(GL\_POLYGON);**  **glColor3ub(194, 117, 0);**  **glVertex2f(76,12);**  **glVertex2f(78,20);**  **glVertex2f(120,20);**  **glVertex2f(118,12);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(194, 117, 0);**  **glVertex2f(74,3);**  **glVertex2f(76,11);**  **glVertex2f(118,11);**  **glVertex2f(116,3);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(189, 120, 13);**  **glVertex2f(69,-5);**  **glVertex2f(72,1);**  **glVertex2f(117,1);**  **glVertex2f(114,-5);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(189, 120, 13);**  **glVertex2f(81,1);**  **glVertex2f(82,3);**  **glVertex2f(84,3);**  **glVertex2f(83,1);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(189, 120, 13);**  **glVertex2f(105,1);**  **glVertex2f(106,3);**  **glVertex2f(108,3);**  **glVertex2f(107,1);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(189, 120, 13);**  **glVertex2f(73,-20);**  **glVertex2f(74,-5);**  **glVertex2f(76,-5);**  **glVertex2f(75,-20);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(189, 120, 13);**  **glVertex2f(79,-15);**  **glVertex2f(80,-5);**  **glVertex2f(82,-5);**  **glVertex2f(81,-15);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(189, 120, 13);**  **glVertex2f(101,-20);**  **glVertex2f(102,-5);**  **glVertex2f(104,-5);**  **glVertex2f(103,-20);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(189, 120, 13);**  **glVertex2f(107,-15);**  **glVertex2f(108,-5);**  **glVertex2f(110,-5);**  **glVertex2f(109,-15);**  **glEnd();**  **}**  **void display()**  **{**  **glClearColor(1,1,1,1);**  **glClear(GL\_COLOR\_BUFFER\_BIT);**  **Bench();**  **glFlush();**  **}**  **int main(int argc, char\*\* argv)**  **{**  **glutInit(&argc, argv);**  **glutCreateWindow("OpenGL Scnery");**  **glutInitWindowSize(320,320);**  **glutDisplayFunc(display);**  **gluOrtho2D(50,125,-35,25);**  **glutMainLoop();**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-** |

|  |
| --- |
| **Question- 5**  Use the building, tree, lamppost and bench to create a scenario |
| **Graph Plot (Picture)-** |
| **Code-**  **#include <windows.h>**  **#include <GL/glut.h>**  **#include <math.h>**  **void Scenery()**  **{**  **glBegin(GL\_POLYGON);**  **glColor3ub(244, 232, 214);**  **glVertex2f(-60,-40);**  **glVertex2f(-60,80);**  **glVertex2f(200,80);**  **glVertex2f(200,-40);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(63, 229, 255 );**  **glVertex2f(-60,40);**  **glVertex2f(-60,80);**  **glVertex2f(200,80);**  **glVertex2f(200,40);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(247, 237, 27 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=70.8-64.1;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+182,y+64.1);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(93, 101, 93 );**  **glVertex2f(-60,-40);**  **glVertex2f(-60,-15);**  **glVertex2f(200,-15);**  **glVertex2f(200,-40);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 219, 77 );**  **glVertex2f(-60,-15);**  **glVertex2f(-60,40);**  **glVertex2f(200,40);**  **glVertex2f(200,-15);**  **glEnd();**  **//**  **glBegin(GL\_POLYGON);**  **glColor3ub(194, 117, 0);**  **glVertex2f(76,12);**  **glVertex2f(78,20);**  **glVertex2f(120,20);**  **glVertex2f(118,12);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(194, 117, 0);**  **glVertex2f(74,3);**  **glVertex2f(76,11);**  **glVertex2f(118,11);**  **glVertex2f(116,3);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(189, 120, 13);**  **glVertex2f(69,-5);**  **glVertex2f(72,1);**  **glVertex2f(117,1);**  **glVertex2f(114,-5);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(189, 120, 13);**  **glVertex2f(81,1);**  **glVertex2f(82,3);**  **glVertex2f(84,3);**  **glVertex2f(83,1);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(189, 120, 13);**  **glVertex2f(105,1);**  **glVertex2f(106,3);**  **glVertex2f(108,3);**  **glVertex2f(107,1);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(189, 120, 13);**  **glVertex2f(73,-20);**  **glVertex2f(74,-5);**  **glVertex2f(76,-5);**  **glVertex2f(75,-20);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(189, 120, 13);**  **glVertex2f(79,-15);**  **glVertex2f(80,-5);**  **glVertex2f(82,-5);**  **glVertex2f(81,-15);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(189, 120, 13);**  **glVertex2f(101,-20);**  **glVertex2f(102,-5);**  **glVertex2f(104,-5);**  **glVertex2f(103,-20);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(189, 120, 13);**  **glVertex2f(107,-15);**  **glVertex2f(108,-5);**  **glVertex2f(110,-5);**  **glVertex2f(109,-15);**  **glEnd();**  **//**  **//3**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142);**  **glVertex2f(164,45.9);**  **glVertex2f(164,43.9);**  **glVertex2f(177.8,43.9);**  **glVertex2f(177.8,45.9);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3f(1,1,1);**  **glVertex2f(166,32);**  **glVertex2f(164,43.9);**  **glVertex2f(177.8,43.9);**  **glVertex2f(176,32);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(166,30);**  **glVertex2f(166,32);**  **glVertex2f(176,32);**  **glVertex2f(176,30);**  **glEnd();**  **//1**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142);**  **glVertex2f(121.9,45.9);**  **glVertex2f(121.9,43.9);**  **glVertex2f(136.4,43.9);**  **glVertex2f(136.4,45.9);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3f(1,1,1);**  **glVertex2f(124,32);**  **glVertex2f(121.9,43.9);**  **glVertex2f(136.4,43.9);**  **glVertex2f(134,32);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(124,30);**  **glVertex2f(124,32);**  **glVertex2f(134,32);**  **glVertex2f(134,30);**  **glEnd();**  **//2**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142);**  **glVertex2f(142.2,54.2);**  **glVertex2f(142.2,56.2);**  **glVertex2f(157.8,56.2);**  **glVertex2f(157.8,54.2);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3f(1,1,1);**  **glVertex2f(144.3,42.3);**  **glVertex2f(142.2,54.2);**  **glVertex2f(157.8,54.4);**  **glVertex2f(155.9,42.2);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142);**  **glVertex2f(144.3,40.2);**  **glVertex2f(144.3,42.3);**  **glVertex2f(155.9,42.3);**  **glVertex2f(155.9,40.2);**  **glEnd();**  **//m**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(148.4,-11.8);**  **glVertex2f(148.5,40.2);**  **glVertex2f(151.4,40.2);**  **glVertex2f(151.3,-11.8);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(145,-15);**  **glVertex2f(144.9,-11.9);**  **glVertex2f(154.9,-11.9);**  **glVertex2f(155,-15);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(142.8,-18.8);**  **glVertex2f(142.8,-15);**  **glVertex2f(157.1,-15);**  **glVertex2f(157.1,-18.8);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(170,26);**  **glVertex2f(170,30);**  **glVertex2f(172,30);**  **glVertex2f(172,23.01);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(128,23.01);**  **glVertex2f(130,26);**  **glVertex2f(170,26);**  **glVertex2f(172,23.01);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(124,30);**  **glVertex2f(134,32);**  **glVertex2f(134,32);**  **glVertex2f(124,30);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(128,23.01);**  **glVertex2f(128,30);**  **glVertex2f(130,30);**  **glVertex2f(130,26);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(170,45);**  **glVertex2f(170,48);**  **glVertex2f(172,48);**  **glVertex2f(172,45);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(128,45);**  **glVertex2f(128,48);**  **glVertex2f(130,48);**  **glVertex2f(130,45);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(144, 143, 142 );**  **glVertex2f(149,56);**  **glVertex2f(149,59);**  **glVertex2f(151,59);**  **glVertex2f(151,56);**  **glEnd();**  **//**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(40, 161, 32 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=51-41.1;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+25.37,y+41.1);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(29, 146, 21 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=45-37.57;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+17.4,y+37.57);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(32, 176, 23);**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=45.21-39.55;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+32,y+39.5);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(34, 147, 27 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=36.39-27.67;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+12.61,y+27.67);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(24, 137, 17 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=34.3-28.42;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+18.45,y+28.42);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(21, 146, 13 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=27.5-23.13;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+5.16,y+23.13);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(22, 164, 12 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=29.57-22.92;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+9.53,y+22.92);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(29, 156, 21 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=29.94-23.7;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+16.15,y+23.7);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(21, 126, 14 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=27.44-19.84;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+16.48,y+19.84);**  **}**  **glEnd();//**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(18,138,10);**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=34.31-29.72;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+26.44,y+29.72);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(18,138,10);**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=28.73-25.33;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+25.1,y+25.33);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(36, 153, 28);**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=28.7-24.17;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+29.72,y+24.17);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(21, 152, 13 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=22.02-17.13;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+33.84,y+17.13);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(36, 153, 28);**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=22.36-18.14;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+40.72,y+18.14);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(21, 152, 13 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=30.58-24.21;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+42.65,y+24.21);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(33, 158, 24 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=31.9-24.32;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+36.27,y+24.32);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(30, 160, 22 );**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r=38.3-30;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x+35,y+30);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(92, 69, 14);**  **glVertex2f(20,-15);**  **glVertex2f(22,14);**  **glVertex2f(28,14);**  **glVertex2f(28,-15);**  **glEnd();**  **glColor3ub(101, 76, 14);**  **glBegin(GL\_POLYGON);**  **glVertex2f(22,12);**  **glVertex2f(15.9,15.65);**  **glVertex2f(21.19,15.45);**  **glVertex2f(23.5,13.84);**  **glEnd();**  **glColor3ub(109, 83, 18);**  **glBegin(GL\_POLYGON);**  **glVertex2f(23.52,13.84);**  **glVertex2f(25.58,21.19);**  **glVertex2f(27.91,20.69);**  **glVertex2f(26,14);**  **glEnd();**  **glColor3ub(101, 76, 14);**  **glBegin(GL\_POLYGON);**  **glVertex2f(26,14);**  **glVertex2f(29.89,16.7);**  **glVertex2f(30.7,13.9);**  **glVertex2f(28,12);**  **glEnd();**  **//**  **//border**  **glBegin(GL\_POLYGON);**  **glColor3ub(251, 254, 80);**  **glVertex2f(-26,-13);**  **glVertex2f(-26,46);**  **glVertex2f(-10,46);**  **glVertex2f(-10,-13);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(207, 25, 114);**  **glVertex2f(-28,46);**  **glVertex2f(-28,50);**  **glVertex2f(-8,50);**  **glVertex2f(-8,46);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(131, 131, 131);**  **glVertex2f(-26,44);**  **glVertex2f(-26,46);**  **glVertex2f(-10,46);**  **glVertex2f(-10,44);**  **glEnd();**  **//5**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-24,38);**  **glVertex2f(-24,42);**  **glVertex2f(-20,42);**  **glVertex2f(-20,38);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-24.5,37);**  **glVertex2f(-24.5,38);**  **glVertex2f(-19.5,38);**  **glVertex2f(-19.5,37);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-16,38);**  **glVertex2f(-16,42);**  **glVertex2f(-12,42);**  **glVertex2f(-12,38);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-16.5,37);**  **glVertex2f(-16.5,38);**  **glVertex2f(-11.5,38);**  **glVertex2f(-11.5,37);**  **glEnd();**  **//4**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-24,30);**  **glVertex2f(-24,34);**  **glVertex2f(-20,34);**  **glVertex2f(-20,30);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-24.5,29);**  **glVertex2f(-24.5,30);**  **glVertex2f(-19.5,30);**  **glVertex2f(-19.5,29);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-16,30);**  **glVertex2f(-16,34);**  **glVertex2f(-12,34);**  **glVertex2f(-12,30);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-16.5,29);**  **glVertex2f(-16.5,30);**  **glVertex2f(-11.5,30);**  **glVertex2f(-11.5,29);**  **glEnd();**  **//3**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-24,22);**  **glVertex2f(-24,26);**  **glVertex2f(-20,26);**  **glVertex2f(-20,22);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-24.5,21);**  **glVertex2f(-24.5,22);**  **glVertex2f(-19.5,22);**  **glVertex2f(-19.5,21);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-16,22);**  **glVertex2f(-16,26);**  **glVertex2f(-12,26);**  **glVertex2f(-12,22);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-16.5,21);**  **glVertex2f(-16.5,22);**  **glVertex2f(-11.5,22);**  **glVertex2f(-11.5,21);**  **glEnd();**  **//2**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-24,14);**  **glVertex2f(-24,18);**  **glVertex2f(-20,18);**  **glVertex2f(-20,14);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-24.5,13);**  **glVertex2f(-24.5,14);**  **glVertex2f(-19.5,14);**  **glVertex2f(-19.5,13);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-16,14);**  **glVertex2f(-16,18);**  **glVertex2f(-12,18);**  **glVertex2f(-12,14);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-16.5,13);**  **glVertex2f(-16.5,14);**  **glVertex2f(-11.5,14);**  **glVertex2f(-11.5,13);**  **glEnd();**  **//1**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-24,6);**  **glVertex2f(-24,10);**  **glVertex2f(-20,10);**  **glVertex2f(-20,6);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-24.5,5);**  **glVertex2f(-24.5,6);**  **glVertex2f(-19.5,6);**  **glVertex2f(-19.5,5);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(75, 202, 242);**  **glVertex2f(-16,6);**  **glVertex2f(-16,10);**  **glVertex2f(-12,10);**  **glVertex2f(-12,6);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(14, 119, 151);**  **glVertex2f(-16.5,5);**  **glVertex2f(-16.5,6);**  **glVertex2f(-11.5,6);**  **glVertex2f(-11.5,5);**  **glEnd();**  **//door**  **glBegin(GL\_POLYGON);**  **glColor3ub(207, 25, 114);**  **glVertex2f(-22,-2);**  **glVertex2f(-20,2);**  **glVertex2f(-16,2);**  **glVertex2f(-14,-2);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(131, 131, 131);**  **glVertex2f(-22,-3);**  **glVertex2f(-22,-2);**  **glVertex2f(-14,-2);**  **glVertex2f(-14,-3);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(169,78,15);**  **glVertex2f(-21,-10);**  **glVertex2f(-21,-3);**  **glVertex2f(-20,-3);**  **glVertex2f(-20,-10);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(169,78,15);**  **glVertex2f(-16,-10);**  **glVertex2f(-16,-3);**  **glVertex2f(-15,-3);**  **glVertex2f(-15,-10);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(221, 138, 16);**  **glVertex2f(-20,-10);**  **glVertex2f(-20,-3);**  **glVertex2f(-16,-3);**  **glVertex2f(-16,-10);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **for(int i=0;i<200;i++)**  **{**  **glColor3ub(32, 29, 24);**  **float pi=3.1416;**  **float A=(i\*2\*pi)/200;**  **float r= -0.7;**  **float x = r \* cos(A);**  **float y = r \* sin(A);**  **glVertex2f(x-19.2,y-6.7);**  **}**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub( 66, 40, 5 );**  **glVertex2f(-26,-13);**  **glVertex2f(-26,-10);**  **glVertex2f(-10,-10);**  **glVertex2f(-10,-13);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(197, 194, 189);**  **glVertex2f(-21.5,-12);**  **glVertex2f(-21,-10);**  **glVertex2f(-15,-10);**  **glVertex2f(-14.5,-12);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3ub(153, 148, 140);**  **glVertex2f(-21.5,-13);**  **glVertex2f(-21.5,-12);**  **glVertex2f(-14.5,-12);**  **glVertex2f(-14.5,-13);**  **glEnd();**  **}**  **void display()**  **{**  **glClearColor(0,0,0,1);**  **glClear(GL\_COLOR\_BUFFER\_BIT);**  **Scenery();**  **glFlush();**  **}**  **int main(int argc, char\*\* argv)**  **{**  **glutInit(&argc, argv);**  **glutCreateWindow("OpenGL Scnery");**  **glutInitWindowSize(320,320);**  **glutDisplayFunc(display);**  **gluOrtho2D(-70,210,-50,90);**  **glutMainLoop();**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-** |