**Practical-10**

Computer Graphics and Multimedia

1. Write a program to draw a circle using midpoint algorithm.

#include<stdio.h>

#include<graphics.h>

void drawcircle(int x0, int y0, int radius)

{

int x = radius;

int y = 0;

int err = 0;

while (x >= y)

{

putpixel(x0 + x, y0 + y, 7);

putpixel(x0 + y, y0 + x, 7);

putpixel(x0 - y, y0 + x, 7);

putpixel(x0 - x, y0 + y, 7);

putpixel(x0 - x, y0 - y, 7);

putpixel(x0 - y, y0 - x, 7);

putpixel(x0 + y, y0 - x, 7);

putpixel(x0 + x, y0 - y, 7);

if (err <= 0)

{

y += 1;

err += 2\*y + 1;

}

if (err > 0)

{

x -= 1;

err -= 2\*x + 1;

}

}

}

int main()

{

int gdriver=DETECT, gmode, error, x, y, r;

initgraph(&gdriver, &gmode, "c:\\tc\\bgi");

printf("Enter radius of circle: ");

scanf("%d", &r);

printf("Enter co-ordinates of center(x and y): ");

scanf("%d%d", &x, &y);

drawcircle(x, y, r);

return 0;

}

