**EXPERIMENT NO. 9**

**AIM-** To draw a circle with a given centre and radius using circle generator algorithm.

**Source Code:**

#include<iostream.h>

#include<conio.h>

#include<graphics.h>

#include<math.h>

#include<dos.h>

voidcircleplot(int,int,int,int);

voidcirclepoint(intxc,intyc,float r)

{

doublex,y;

for(x=0;x<=y;x++)

{

double temp=((r\*r)-(x\*x));

y=sqrt(temp);

circleplot(xc,yc,x,y);

delay(50);

}

}

void main()

{

intgd=DETECT,gm,x,y,r;

clrscr();

initgraph(&gd,&gm,"C:\\turboc3\\bgi");

cout<<"Enter center point(Xc,Yc):\t";

cin>>x>>y;

cout<<"Enter Radius\t";

cin>>r;

circlepoint(x,y,r);

getch();

closegraph();

}

voidcircleplot(intxc,intyc,intx,int y)

{

putpixel(xc+x,yc+y,1);

putpixel(xc+x,yc-y,2);

putpixel(xc-x,yc+y,3);

putpixel(xc-x,yc-y,4);

putpixel(xc+y,yc-x,5);

putpixel(xc+y,yc+x,6);

putpixel(xc-y,yc+x,7);

putpixel(xc-y,yc-x,8);

}

**OUTPUT:-**

