PRACTICAL 3:

AIM: Write a Program to draw line using Bresenham's Algorithm.

Source Code:

```
#include<stdio.h>
#include<conio.h>
#include<graphics.h>
void drawline(int x0,int y0,int x1,int y1)
{
        int dx,dy,p,x,y;
        dx=x1-x0;
        dy=y1-y0;
        x=x0;
        y=y0;
        p=2*dy-dx;
        while(x<x1){
        if(p>=0){
        putpixel(x,y,7);
        printf("%d\t%d\n",x,y);
        y+=1;
        x+=1;
        p=p+2*dy-2*dx;
        }
        else{
        putpixel(x,y,7);
        printf("%d\t%d\n",x,y);
        p=p+2*dy;
        x+=1;
        }
        }
}
void main()
{
        int gd=DETECT,gm;
        int x0,x1,y0,y1;
        initgraph(&gd,&gm,"C:\\TURBOC3\\BGI");
        printf("Enter 1st coordinate: ");
        scanf("%d%d",&x0,&y0);
        printf("Enter 2nd coordinate: ");
        scanf("%d%d",&x1,&y1);
        drawline(x0,y0,x1,y1);
        getch();
}
```

Output: