Name - Rishath Kadyan
Roll no. - 1121110 (29)
Class - BCA 6 B
Subject - Computer Graphics.

Ans 1.

```
#include<stdio.h>
#include<graphics.h>
#include<dos.h>
#include<conio.h>
void floodfill(int x, int y, int old, int newcol)
{
  int current;
  current= getpixel(x,y);
  if(current==old)
  {
    delay(5);
putpixel(x,y,newcol);
floodfill(x+1,y,old,newcol);
floodfill(x-1,y,old,newcol);
floodfill(x,y+1,old,newcol);
floodfill(x,y-1,old,newcol);
floodfill(x+1,y+1,old,newcol);
floodfill(x-1,y+1,old,newcol);
floodfill(x+1,y-1,old,newcol);
floodfill(x-1,y-1,old,newcol);
  }
}
void main()
{
```

Rishath

```
int gd = DETECT, gm;
initgraph(&gd, &gm, "C:\TURBOC3\\BGI");
  rectangle(50,50,150,150);
   floodfill(70,70,0,15);
    getch();
    closegraph();
}
```

Algorithm

Algorithm

Step 1 - Initialize the value of seed point (seedx, seedy), fcolor and dcol

Step 2 - Define the boundary values of polygon.

Step 3 - Check if the current seed point is of default color then repeat the steps 4 and 5 till the boundary pixels reached.

If getpixel (x,y) = dcol then repeat step 4 and 5

Step 4 - Change the default color with the fill color at the seed point.

setPixel (seedx, seedy, fcol)

Step 5 - Recursively follow the procedure with four neighbourhood points.

FloodFill (seedx - 1, seedy, fcol, dcol)

FloodFill (seedx + 1, seedy, fcol, dcol)

FloodFill (seedx, seedy - 1, fcol, dcol)

FloodFill (seedx, seedy + 1, fcol, dcol)

Rishath

Algorithm

FloodFill(seedx-1, seedy+1, fcol, dcol)

FloodFill(seedx+1, seedy+1, fcol, dcol)

FloodFill(seedx+1, seedy-1, fcol, dcol)

FloodFill(seedx-1, seedy-1, fcol, dcol)

Step 6 - Exit.

Rishath