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Sub - Computer Graphics.
Subcod → PBG-602

Q4(ii) Algorithm for floodfill using Boundary fill

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

Step 2- Define the boundary values of the polygon

Step 3- Check if the current seed point is of default colour then repeat the next 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 colour with the fill color at the seed point.

setPixel (seedx, seedy, fcol)

Step 5- Recursively follow the procedure with four neighborhood 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)
floodfill (seedx+1, seedy-1, fcol, dcol)
" (seedx+1, seedy-1, fcol, dcol)
" (seedx-1, seedy-1, fcol, dcol)

Step 6 - Exit

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floodfill(70,70,0,15)
getch();
closegraph();
}

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Step 6.

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Sub - Computer Graphics with C
Sub code - TBC-602

Q1- Flood fill

```
#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()
{
    int gd = DETECT, gm;
    initgraph(&gd, &gm, "C:\\TURBOC3\\BGI");
    rectangle(50, 50, 150, 150);
```

C:\WINDOWS\system32\cmd.exe