END-TERM PRALTICAL EXAM

NAME - NIKITA BISHT

FATHER'S NAME - LT. NARENDRA SINGH BISHT

COURSE - BCA - 6B

UNIVERSITY ROLL NO - 1121093

CLASS ROLL NO - 13

SUBJECT - COMPUTER GRAPHICS AND ANIMATIONS (PRALTICAL)

SUBJECT CODE - PBC - 602

Name- Nikita Bisht University Roll No - 1121093
Course - BCA-6B Class Roll No- 13

P1 : Write an Algorithm and Program to implement floodfill Algorithm using 8 connected Approach.

Algorithm :-

Step 1 :- Start

step2 :- Initialize the value of seed point (x,y,old, newcol),

Step3 :- Define the boundary values.

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

if (current == old)

steps :- Recursively following the below procedure.

Procedure floodfill (x,y,fill_color, old_color: integer)

if (getpixel (x,y) = old_color)

{

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```
setpixel(x,y, fill_color);
  fill(x+1, y, fill_color, old_color);
  fill(x-1, y, fill_color, old_color);
  fill(x, y+1, fill_color, old_color);
  fill(x, y-1, fill_color, old_color);
  }
  }
```

Step 6: STOP

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Program:

```
#include <stdio.h>
#include <graphics.h>
#include <dos.h>
#include <conio.h>
void flood fill (int x, int y, int old, int newcol)
{
    int current;
    current = getpixel (x,y);
    if (current == old)
    {
        delay (5);
putpixel (x, y, newcol);
putpixel (x+1, y, old, newcol);
putpixel (x-1 jy, old, newcol);
putpixel (x, y+1, old, newcol);
putpixel (x, y-1, old, newcol);
putpixel (x+1, y+1, old, newcol);
putpixel (x-1, y+1, old, newcol);
putpixel (x+1, y-1, old, newcol);
putpixel (x-1, y-1, old, newcol);
3
3
```

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```
void main ()
{
  int gd = DETECT , gm;
 initgraph (&gd , &gm );
   rectangle (50,50,150,150);
    floodfill (70,70,10,15);
    getch ();
     closegraph ();
}
```