COMPUTER GRAPHICS

NAME : SHRIRANG. R. MHALGI

CLASS : S.E.

DIV : B

ROLL NO : 222006

PROBLEM STATEMENT :

Write a java program to implement snowflakes i.e. Koch curve.

CODE :

package cgg;

import java.awt.\*;

import javax.swing.\*;

public class Assignment9Snowflakes extends JApplet{

int level = 0;

public void init()

{

String levelStr = JOptionPane.showInputDialog("Enter the depth of recursion");

level = Integer.parseInt(levelStr);

}

public void paint(Graphics g)

{

drawSnow(g,level,20,280,280,280);

drawSnow(g,level,280,280,150,20);

drawSnow(g,level,150,20,20,280);

}

private void drawSnow (Graphics g, int lev, int x1, int y1, int x5, int y5)

{

int deltaX, deltaY, x2, y2, x3, y3, x4, y4;

if (lev == 0)

{

g.drawLine(x1, y1, x5, y5);

}

else{

deltaX = x5 - x1;

deltaY = y5 - y1;

x2 = x1 + deltaX / 3;

y2 = y1 + deltaY / 3;

x3 = (int) (0.5 \* (x1+x5) + Math.sqrt(3) \* (y1-y5)/6);

y3 = (int) (0.5 \* (y1+y5) + Math.sqrt(3) \* (x5-x1)/6);

x4 = x1 + 2 \* deltaX /3;

y4 = y1 + 2 \* deltaY /3;

drawSnow (g,lev-1, x1, y1, x2, y2);

drawSnow (g,lev-1, x2, y2, x3, y3);

drawSnow (g,lev-1, x3, y3, x4, y4);

drawSnow (g,lev-1, x4, y4, x5, y5);

}

}

}

OUTPUT :

