Q.1) Create an applet which contains one Combo Box for fonts name, One List Box for Font Size, and 3 Radio Buttons for Font Style i.e. Bold, Italic, Plain. The applet also displays some string message by a label. Write a Java program such that user will able to change the Font Type, Font Size, and Font Style of the text displayed as label caption.

import java.awt.\*;

import java.awt.event.\*;

import java.applet.\*;

import javax.swing.\*;

public class textformatting extends Applet implements ItemListener

{

int size;

Label la;

Choice ch;

List li;

Checkbox chbox1,chbox2,chbox3;

CheckboxGroup radio=new CheckboxGroup();

public textformatting()

{

//setLayout(FlowLayout());

la=new Label("I love java");

add(la);

ch=new Choice();

ch.add("Times Roman");

add(ch);

ch.addItemListener(this);

li=new List(3,true);

li.add("12");

li.add("14");

li.add("16");

add(li);

li.addItemListener(this);

chbox1=new Checkbox("BOLD",radio,true);

chbox2=new Checkbox("ITALIC",radio,false);

chbox3=new Checkbox("PLAIN",radio,false);

add(chbox1);

add(chbox2);

add(chbox3);

chbox1.addItemListener(this);

chbox2.addItemListener(this);

chbox3.addItemListener(this);

}

public void itemStateChanged(ItemEvent e)

{

Font bold=new Font("Times Roman",Font.BOLD,size);

Font italic=new Font("Times Roman",Font.ITALIC,size);

Font plain=new Font("Times Roman",Font.PLAIN,size);

if(e.getSource()==ch)

{

la.setFont(plain);

}

else if(e.getSource()==li)

{

if(li.getSelectedItem()=="12")

{

size=12;

}

else if(li.getSelectedItem()=="14")

{

size=14;

}

else if(li.getSelectedItem()=="16")

{

size=16;

}

}

else if(e.getSource()==chbox1)

{

la.setFont(bold);

}

else if(e.getSource()==chbox2)

{

la.setFont(italic);

}

else if(e.getSource()==chbox3)

{

la.setFont(plain);

}

repaint();

}

public void paint(Graphics g)

{

}

}

Q2) Write a java program to append the contents of the file “file1.txt” to “file2.Txt”

import java.io.\*;

public class appendfile

{

public static void main(String arg[]) throws IOException

{

RandomAccessFile file1=new RandomAccessFile("abc.txt","rw");

RandomAccessFile file2=new RandomAccessFile("def.txt","rw");

file1.seek(0);

int i=0;

while(file1.readLine()!=null)

{

i++;

}

file1.seek(0);

file2.seek(file2.length());

String s="";

while(i>0)

{

s=file1.readLine();

file2.writeBytes(s);

i--;

}

System.out.println("both file are appends");

file1.close();

file2.close();

}

}

Q3) Create a package Games. Add classes Cricket, Hockey, and FootBall in it. Add appropriate

methods in each class which accepts and displays information of players for that game. Create a

class GameDemo which imports the package Game in it, and used the classes from it.

package games;

import java.util.Scanner;

public class cricket

{

Scanner in=new Scanner(System.in);

String typeofmatch,teamname,location;

public void accept()

{

System.out.println("enter the type of cricket match");

typeofmatch=in.nextLine();

System.out.println("Enter the both team name");

teamname=in.nextLine();

System.out.println("enter the location of match");

location=in.nextLine();

}

public void display()

{

System.out.println("Todays match is :" + typeofmatch);

System.out.println("both team names are :" + teamname);

System.out.println("Location of match :" + location);

}

}

package games;

import java.util.Scanner;

public class Hockey

{

Scanner in=new Scanner(System.in);

String typeofmatch,teamname,location;

public void accept()

{

System.out.println("enter the series of hocky match");

typeofmatch=in.nextLine();

System.out.println("Enter the both team name");

teamname=in.nextLine();

System.out.println("enter the location of match");

location=in.nextLine();

}

public void display()

{

System.out.println("Todays match is :" + typeofmatch);

System.out.println("both team names are :" + teamname);

System.out.println("Location of match :" + location);

}

}

package games;

import java.util.Scanner;

public class Football

{

Scanner in=new Scanner(System.in);

String typeofmatch,teamname,location;

public void accept()

{

System.out.println("enter the series of footbal match");

typeofmatch=in.nextLine();

System.out.println("Enter the both team name");

teamname=in.nextLine();

System.out.println("enter the location of match");

location=in.nextLine();

}

public void display()

{

System.out.println("Todays match is :" + typeofmatch);

System.out.println("both team names are :" + teamname);

System.out.println("Location of match :" + location);

}

}

import games.cricket;

import games.Hockey;

import games.Football;

import java.util.Scanner;

public class packagedemo2

{

Scanner in=new Scanner(System.in);

int num;

public packagedemo2()

{

System.out.println("1.Cricket \n 2.Hockey \n 3.Football");

num=in.nextInt();

switch(num)

{

case 1:

cricket ck=new cricket();

ck.accept();

ck.display();

break;

case 2:

Hockey hk=new Hockey();

hk.accept();

hk.display();

break;

case 3:

Football fb=new Football();

fb.accept();

fb.display();

}

}

public static void main(String arg[])

{

packagedemo2 x1=new packagedemo2();

}

}

Q4) Create a class Employee with data members emp\_no, emp\_name and basic\_sal. Derive a class

Officer from Employee, who gets additional traveling allowance (10% of basic) as data member.

Derive a class Manager from Officer who gets a special children education allowance (Rs. 5000/-

) as data member.

import java.util.Scanner;

class Employee

{

int emp\_no;

String emp\_name="";

int basic\_sal;

}

class officer extends Employee

{

int travelallowance;

}

class manager extends officer

{

Scanner in=new Scanner(System.in);

int educationallowance;

public void get()

{

System.out.println("Enter the emp\_name");

emp\_name=in.nextLine();

System.out.println("Enter the emp\_no");

emp\_no=in.nextInt();

System.out.println("Enter the basic salary");

basic\_sal=in.nextInt();

System.out.println("Enter the travel allowance");

travelallowance=in.nextInt();

System.out.println("Enter the education allowance");

educationallowance=in.nextInt();

}

public void print()

{

System.out.println("Employee id:" +emp\_no);

System.out.println("Employee name:" +emp\_name);

System.out.println("Employee basic salary:" +basic\_sal);

System.out.println("Employee travel allowance:" +travelallowance);

System.out.println("Employee education allowance:" +educationallowance);

}

public static void main(String arg[])

{

manager x1=new manager();

x1.get();

x1.print();

}

}

Q5) Write a program that create and run the following threads:

i) To print First 10 Prime Numbers form.

ii) To print First 10 terms of Fibonacci Series.

iii) To print word “Hello” 15 times.

class prime extends Thread

{

public void run()

{

int counter,i,j;

System.out.println("Prime numbers are:");

for(i=1;i<=20;i++)

{

counter=0;

for(j=1;j<=i;j++)

{

if(i%j==0)

{

counter++;

}

}

if(counter==2)

{

System.out.println(i);

}

}

}

}

class fibonacci extends Thread

{

public void run()

{

System.out.println("fibonacci series");

int first=0,second=1,next,i;

for(i=0;i<=10;i++)

{

if(i<=1)

{

next=i;

}

else

{

next=first+second;

first=second;

second=next;

}

System.out.println(next);

}

}

}

class hello extends Thread

{

int i;

public void run()

{

for(i=0;i<15;i++)

{

System.out.println("hello");

}

}

}

public class runthread

{

public static void main(String arg[])throws InterruptedException

{

prime p=new prime();

p.start();

Thread.sleep(1000);

fibonacci f=new fibonacci();

f.start();

Thread.sleep(1000);

hello h=new hello();

h.start();

}

}

Q6) Create a Frame which contains 3 push buttons Red, Green, and Blue in it. Write Java program

which handles the ActionEvent such that, When user clicked on Red button, background color of

frame changes to red, when user clicked on Green button, background color changes to green, and

when user clicked on Blue button, color changes to blue.

import java.awt.\*;

import java.awt.event.\*;

import java.applet.\*;

import javax.swing.\*;

public class pushbutton extends Frame implements ActionListener

{

Button b1,b2,b3;

public pushbutton()

{

setLayout(new FlowLayout());

setSize(500,500);

setVisible(true);

setTitle("push button to change background");

b1=new Button("red");

b2=new Button("green");

b3=new Button("blue");

add(b1);

add(b2);

add(b3);

b1.addActionListener(this);

b2.addActionListener(this);

b3.addActionListener(this);

}

public void actionPerformed(ActionEvent e)

{

if(e.getSource()==b1)

{

setBackground(Color.red);

}

else if(e.getSource()==b2)

{

setBackground(Color.green);

}

else if(e.getSource()==b3)

{

setBackground(Color.blue);

}

}

public static void main(String arg[])

{

pushbutton x1=new pushbutton();

}

}

Q7) Create a Frame which contains three scrollbars Red, Green, and Blue in it. The three scrollbars

shows the Color Value from 0 to 255. Handle the appropriate Event of scrollbar such that, when

user adjust the thumb of any of three scrollbars the background color of panel get changed

according to the values of three scrollbars.

import java.awt.\*;

import java.awt.event.\*;

import java.applet.\*;

import javax.swing.\*;

public class scrollbar extends Frame implements AdjustmentListener

{

Scrollbar scrollred,scrollblue,scrollgreen;

Label l1,l2,l3;

public scrollbar()

{

// setBackground(Color.yellow);

setLayout(null);//GridLayout(3,2,5,5));

setVisible(true);

setSize(500,500);

scrollred=new Scrollbar(Scrollbar.HORIZONTAL,0,0,0,255);

scrollred.setUnitIncrement(5);

scrollred.setBlockIncrement(15);

add(scrollred);

scrollred.addAdjustmentListener(this);

scrollred.setBounds(130,100,100,30);

l1=new Label("red");

add(l1);

l1.setBounds(30,100,100,30);

scrollgreen=new Scrollbar(Scrollbar.HORIZONTAL,0,0,0,255);

scrollgreen.setUnitIncrement(5);

scrollgreen.setBlockIncrement(15);

add(scrollgreen);

scrollgreen.addAdjustmentListener(this);

scrollgreen.setBounds(130,140,100,30);

l2=new Label("green");

add(l2);

l2.setBounds(30,140,100,30);

scrollblue=new Scrollbar(Scrollbar.HORIZONTAL,0,0,0,255);

scrollblue.setUnitIncrement(5);

scrollblue.setBlockIncrement(15);

add(scrollblue);

scrollblue.addAdjustmentListener(this);

scrollblue.setBounds(130,180,100,30);

l3=new Label("blue");

add(l3);

l3.setBounds(30,180,100,30);

}

public void adjustmentValueChanged(AdjustmentEvent e)

{

int rv=scrollred.getValue();

int gv=scrollgreen.getValue();

int bv=scrollblue.getValue();

l1.setText("RED: "+rv);

l2.setText("Green: "+gv);

l3.setText("Blue: "+bv);

Color cl=new Color(rv,gv,bv);

setBackground(cl);

}

public static void main(String arg[])

{

scrollbar x1=new scrollbar();

}

}

Q8) Create a Java Application which handles the Mouse Event. When user clicked on frame once it

draw a rectangle on it. When user clicked again on frame and inside the area of previously drawn

rectangle, then that rectangle gets erased. If user clicked outside the area of rectangle, the

rectangle remains as it is. User should not able to draw new rectangle until the first rectangle get

erased.

import java.awt.\*;

import java.awt.event.\*;

import java.applet.\*;

import javax.swing.\*;

public class rectangle extends Frame implements MouseListener

{

int x,y,click=0,size=10;

public rectangle()

{

setLayout(new FlowLayout());

setSize(500,500);

setVisible(true);

addMouseListener(this);

}

public void mouseClicked(MouseEvent e)

{

click++;

x=e.getX();

y=e.getY();

repaint();

}

public void paint(Graphics g)

{

if(click%2==1)

{

g.setColor(Color.red);

g.fillRect(x,y,size,size);

}

else

{

g.fillRect(x,y,0,0);

}

}

public void mousePressed(MouseEvent e){}

public void mouseEntered(MouseEvent e){}

public void mouseReleased(MouseEvent e){}

public void mouseExited(MouseEvent e){}

public static void main(String arg[])

{

rectangle x1=new rectangle();

}

}