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SNS COLLEGE OF TECHNOLOGY

(Autonomous)

B

MCA- Internal Assessment –I (June 2023)

Academic Year 2022-2023(Even) / Second Semester

19CAT608 – Java Programming

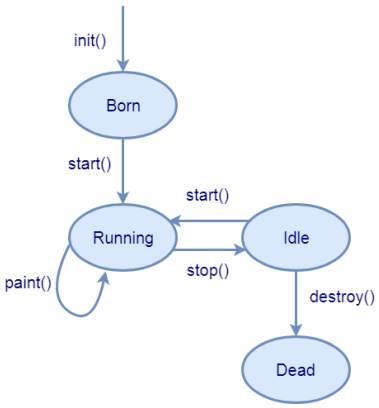
Time: $1^{1/2}$ Hours **Maximum Marks: 50**

Answer All Questions

PART - A (5 x 2 = 10 Marks)

1	How the java program is complied? javac pgm.java	CO1	U
2	Can you define multiple inheritances in Java? Justify your answer **Java does not support multiple inheritance**. This means that a class cannot extend more than one class, but we can still achieve the result using the keyword 'extends'	CO1	AN

3	Write the syntax of Exception handling.
	Try
	{
	Stmt;
	}
	Catch(exception
	{stmt;}
		CO1	R

4	Sketch the APPLET life cycle. 	CO2	AN
5	List any two interfaces used in AWT. ActionListener WindowListener	CO2	U

PART - B (2 x 13 = 26, 1 x 14=14Marks)

6 (a) Discuss about: Java platform and features.

- Simple. Java is a simple programming language and easy to understand because it does not contain complexities that exist in prior programming languages. ...
- Object-Oriented. ... CO1 U
- Platform Independent. ...
- Portable. ...
- Robust. ...
- Secure. ...
- Interpreted. ...

- Multi-Threaded.

(Or)

(b) Write a java program to implement class, object and interface.

```
class Student
{
int rollnumber;
void getnumber(int n)
{ rollnumber=n; }
void putnumber()
{ System.out.println("Roll no:"+rollnumber); }}

class Test extends Student
{float part1,part2;
void getmarks(float m1,float m2)
{ part1=m1; part2=m2;
}
void putmarks()
{       System.out.println("Marks obtained");
        System.out.println("part1="+part1);  System.out.println("part2="+part2);
}}
interface Sports
        {               float sportwt=6.0f; void putwt();       }
        class Results extends Test implements Sports
        {float total;
                public void putwt()
                {System.out.println("sportswt="+sportwt);             }
                void display()
                {                       total=part1+part2+sportwt;
                        putnumber();
                        putmarks();
                        putwt();
                        System.out.println("Total score="+total);
                }       }
class Hybrid
{       public static void main(String args[])
        {
                Results student1=new Results();
                student1.getnumber(1234);
                student1.getmarks(27.5f,33.0f);
                student1.display();}}
```

CO1 APP

7 (a) Develop a java program using Utilities and Collection

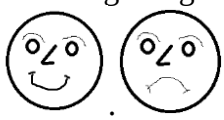
```
import java.util.Collections;
import java.util.ArrayList;
import java.util.List;

public class CollectionsDemo {

public static void main(String[] args) {
List<String>student<String>List = new ArrayList();
studentList.add("Neeraj");
studentList.add("Mahesh");
```

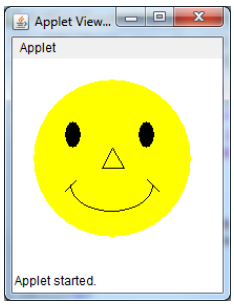
CO1 APP

```
studentList.add("Armaan");
studentList.add("Preeti");
studentList.add("Sanjay");
studentList.add("Neeraj");
studentList.add("Zahir");
System.out.println("Original List " + studentList);
Collections.sort(studentList);
System.out.println("Sorted alphabetically List " + studentList);
Collections.reverse(studentList);
System.out.println("Reverse List " + studentList);
Collections.shuffle(studentList);
System.out.println("Shuffled List " + studentList);
System.out.println("Checking occurance of Neeraj: "
                + Collections.frequency(studentList, "Neeraj"));
        }
}
```

(Or)

(b) Illustrate the methods used in Graphics class and create a Applet window for the following design CO2 APP






```
import java.applet.Applet;
import java.awt.*;
public class SmileyExc extends Applet {
 public void paint(Graphics g) {
    g.setColor(Color.yellow);
  g.fillOval(20,20,150,150);    // For face
  g.setColor(Color.black);
  g.fillOval(50,60,15,25);      // Left Eye
  g.fillOval(120,60,15,25);     // Right Eye
  int x[] = {95,85,106,95};
  int y[] = {85,104,104,85};
  g.drawPolygon(x, y, 4);       // Nose
  g.drawArc(55,95,78,50,0,-180);  // Smile
  g.drawLine(50,126,60,116);    // Smile arc1
  g.drawLine(128,115,139,126);  // Smile arc2
 }}
/* <applet code="SmileyExc.class" width="200" height="200">
   </applet>
*/
```

8 (a) Create and import user defined package for student database.

Personal.java(save in savings folder)

```
import java.io.*;
public class Personal
{
        int regno;
        String name,address;
        public int get()
        {
                regno=7123467;
                name=”Kavi”;
                address=”Coimbatore;
        }

        public void disp()
```

CO1 C

```
        {
                System.out.println("\n\t PERSONAL");
                System.out.println("RegNo"+regno);
                System.out.println("Name"+name);
                System.out.println("Address"+address);
        }
}
```

Official.java(store in savings folder)

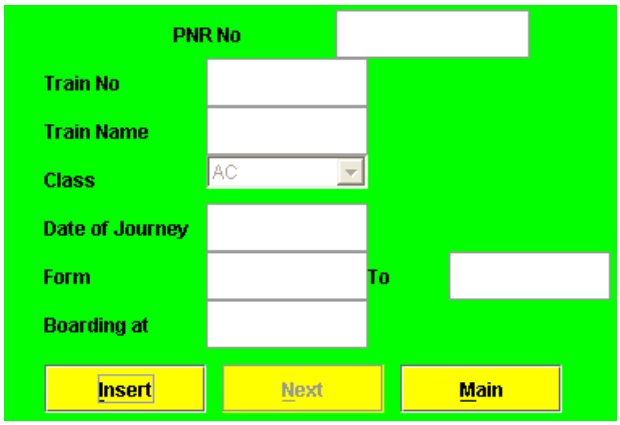
```
import java.io.*;
public class Official
{
        public static int m1,m2,m3,m4;
        int tot,avg;

        public void calc()
        {
                m1=80;
                m2=100;
                m3=70;
                m4=70;
                tot=m1+m2+m3+m4;
                avg=tot/4;
        }
        public void disp()
        {
                System.out.println("\n\tOfficial");
                System.out.println("Sub1:"+m1);
                System.out.println("Sub2:"+m2);
                System.out.println("Sub3:"+m3);
                System.out.println("Sub4:"+m4);
                System.out.println("Total:"+tot+"Average:"+avg);
        }
}
```

Pack.java(store in root level)

```
import java.io.*;
import savings.*;
public class Pack
{
        public static void main(String args[]) throws IOException
        {
                int x,y;
                Personal i=new Personal();
                i.get();
                Official e=new Official();
                e.calc();
                i.disp();
                e.disp();

        }}
```

(Or)

(b) Narrate AWT components and write the java program to design the form for ticket reservation. CO2 C



Java code to designing the above form using AWT components like
1.textfield
2.button
3.frame etc..