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Assignment No. 01

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date: / /**

Signature:

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Q. Java programs based on branching and looping statements.

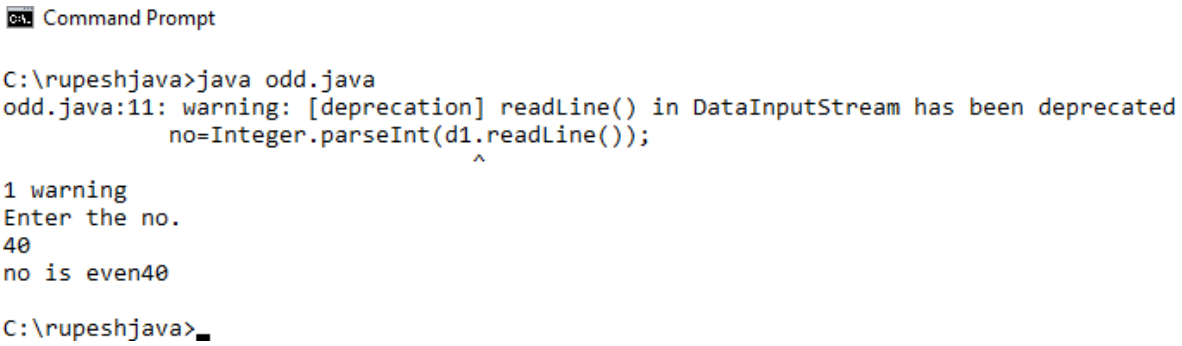
Branching:

1) if statement:

Program:

```
 import java.io.*;
class odd
{
    public static void main(String args[])
   {
      int no;
      try
     {
         DataInputStream d1=new DataInputStream(System.in);
        System.out.println("Enter the no.");
        no=Integer.parseInt(d1.readLine());
        if(no%2==0)
        {
           System.out.println("no is even"+no);
         }
        if(no%2!=0)
       {
          System.out.println("no is odd"+no);
       }
      }
      catch(Exception e)
     {
         System.out.println(e);
      }
   }
}
```

**********OUTPUT**********



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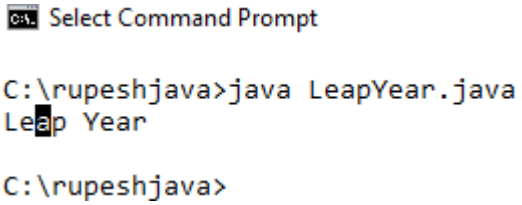
2) if else statement:

Program:

```
import java.io.*;
public class LeapYear
{
  public static void main(String args[])
  {
    int year=2020;
    if((year%4==0)&&(year%100!=10)||(year%400==0))
    {
      System.out.println("Leap Year");
    }
    else
    {
      System.out.println("It is not leap year");
    }
  }
}
```

**********OUTPUT**********



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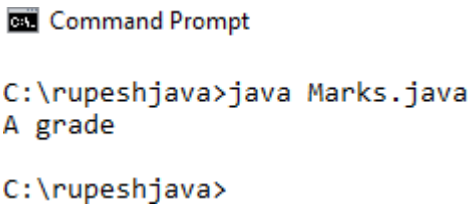
3) if-else-if ladder statement:

Program:

```
import java.io.*;
public class Marks
{
  public static void main(String args[])
  {
    float marks=89;
    if(marks<50)
    {
      System.out.println("Fail");
    }
    else if(marks>=50 && marks<60)
    {
      System.out.println("D grade");
    }
    else if(marks>=60 && marks<70)
    {
      System.out.println("C grade");
    }
    else if(marks>=70 && marks<80)
    {
      System.out.println("B grade");
    }
    else if(marks>=80 && marks<90)
    {
      System.out.println("A grade");
    }
    else if(marks>=90 && marks<100)
    {
      System.out.println("A+ grade");
    }
    else
    {
      System.out.println("Invalid");
    }
  }
}
```

**************************************OUTPUT**************************************



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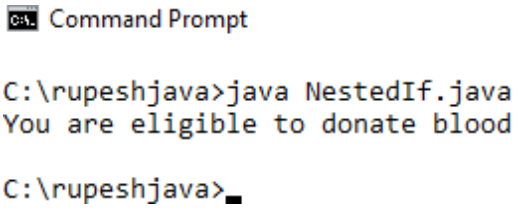
4) Nested if-else ladder:

Program:

```
import java.io.*;
public class NestedIf
{
  public static void main(String args[])
  {
    int age=20;
    int weight=80;
    if(age>=18)
    {
      if(weight>50)
      {
        System.out.println("You are eligible to donate blood");
      }
    }
  }
}
```

**********OUTPUT**********



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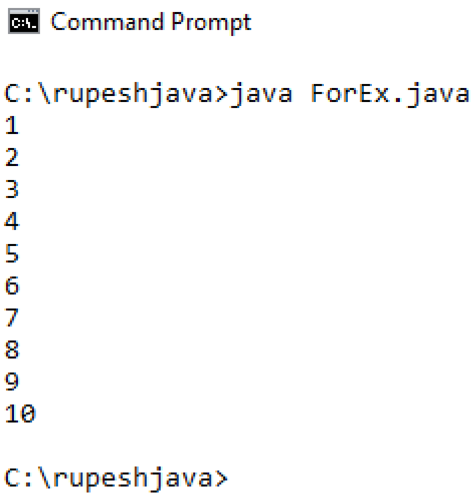
Looping:

1) **for Loop:**

Program:

```
import java.io.*;
public class ForEx
{
    public static void main(String args[])
  {
   for(int i=1;i<=10;i++)
   {
     System.out.println(i);
   }
  }
}
```

***********************************OUTPUT*********************************



```
Command Prompt

C:\rupeshjava>java ForEx.java
1
2
3
4
5
6
7
8
9
10

C:\rupeshjava>
```

****

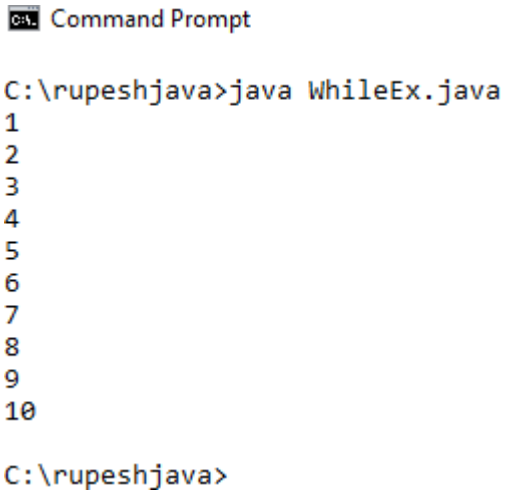
2) **while Loop:**

Program:

```
import java.io.*;
public class WhileEx
{
  public static void main(String args[])
  {
   int i=1;
   while(i<=10)
   {
```

```
    System.out.println(i);
    i++;
   }
  }
}
```

**********OUTPUT**********



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Assignment No. 02

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

****

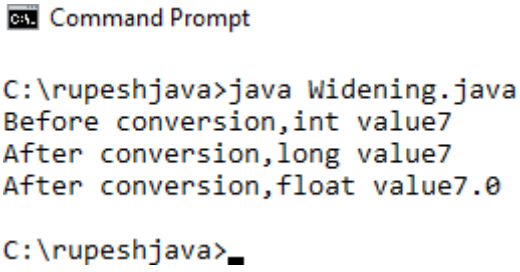
Q. Java programs based on Typecasting

Widening Typecasting (implicit)

Program:

```
import java.io.*;
public class Widening
{
 public static void main(String args[])
 {
   int x=7;
   long y=x;
   float z=y;
   {
    System.out.println("Before conversion,int value"+x);
    System.out.println("After conversion,long value"+y);
    System.out.println("After conversion,float value"+z);
   }
  }
}
```

**********OUTPUT**********



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Assignment No. 03

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

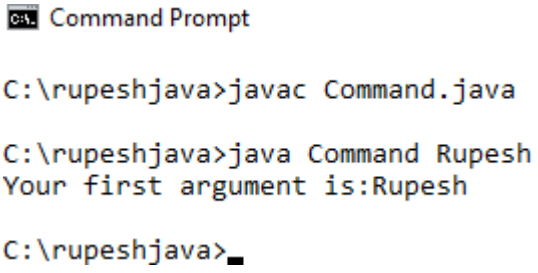
****

Q. Java programs based on command line arguments.

Program:

```
import java.io.*;
public class Command
{
 public static void main(String args[])
 {
  System.out.println("Your first argument is:"+args[0]);
 }
}
```

**********OUTPUT**********



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Assignment No. 04

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

****

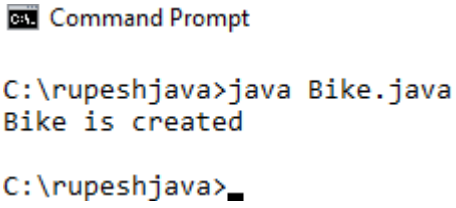
Q. Java programs based on constructors.

1) Default Constructor

Program:

```
import java.io.*;
class Bike
{
 Bike()
 {
  System.out.println("Bike is created");
 }
 public static void main(String args[])
 {
  Bike b=new Bike();
 }
}
```

**********OUTPUT**********



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Assignment No. 05

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

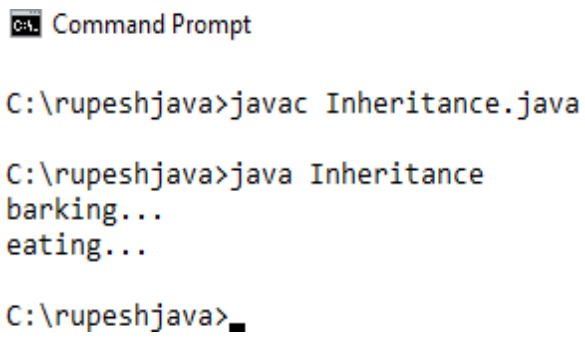
****

Q. Java programs based on Inheritance.

Program:

```
class Animal
{
  void eat()
  {
     System.out.println("eating...");
  }
}
class Dog extends Animal
{
  void bark()
  {
     System.out.println("barking...");
  }
}
class Inheritance
{
   public static void main(String args[])
   {
     Dog d=new Dog();
     d.bark();
     d.eat();
   }
}
```

**********OUTPUT**********


Command Prompt
C:\rupeshjava>javac Inheritance.java
C:\rupeshjava>java Inheritance
barking...
eating...
C:\rupeshjava>

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Assignment No. 06

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

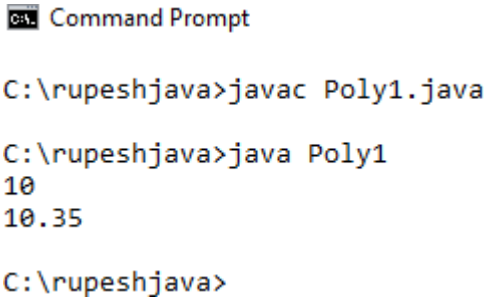
****

Q. Java programs based on method overloading.

Program:

```
import java.io.*;
class Helper
{
   static int Multiply(int a,int b)
   {
      return a*b;
    }
    static double Multiply(double a,double b)
   {
      return a*b;
   }
}
class Poly1
{
     public static void main(String args[])
    {
       System.out.println(Helper.Multiply(2,5));
       System.out.println(Helper.Multiply(2.3,4.5));
     }
}
```

**********OUTPUT**********



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Assignment No. 07

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date: / /**

Signature:

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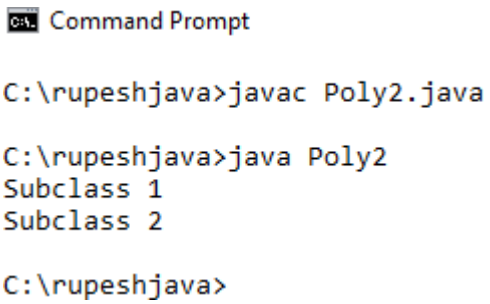
Q. Java programs based on method overriding.

Program:

```
import java.io.*;
class Parent
{
 void Print()
 {
  System.out.println("Parent class");
 }
}
class sub1 extends Parent
{
 void Print()
 {
  System.out.println("Subclass 1");
 }
}
class sub2 extends Parent
{
 void Print()
 {
  System.out.println("Subclass 2");
 }
}
class Poly2
{
 public static void main(String args[])
 {
  Parent a;
  a=new sub1();
  a.Print();
  a=new sub2();
  a.Print();
 }
}
```

**********OUTPUT**********


Command Prompt
C:\rupeshjava>javac Poly2.java
C:\rupeshjava>java Poly2
Subclass 1
Subclass 2
C:\rupeshjava>

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Assignment No. 08

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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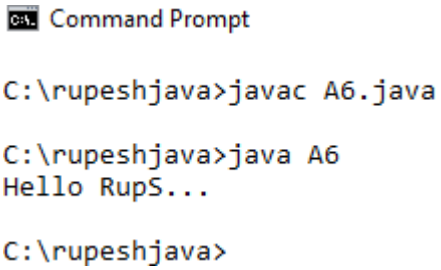
Q. Java programs based on interfaces.

Program:

```
import java.io.*;
interface printable
{
 void print();
}
class A6 implements printable
{
 public void print()
 {
  System.out.println("Hello...");
 }
 public static void main(String args[])
 {
  A6 obj=new A6();
  obj.print();
 }
}
```

**********OUTPUT**********



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Assignment No. 09

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

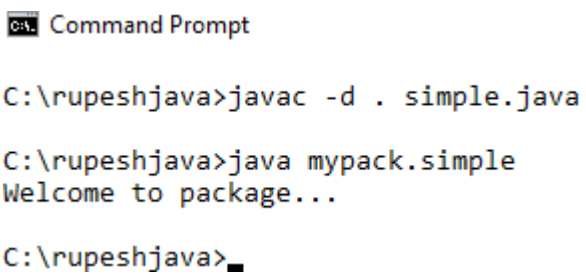
****

Q. Java programs based on packages.

Program:

```
package mypack;
public class Simple
{
  public static void main(String args[])
  {
    System.out.println("Welcome to package...");
  }
}
```

**********OUTPUT**********



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Assignment No. 10

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

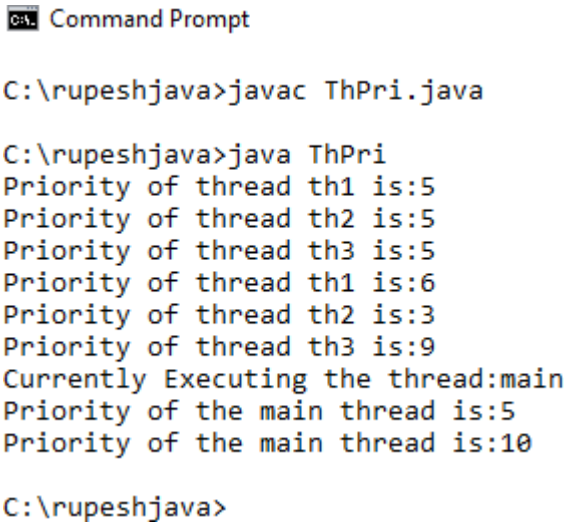
****

Q. Java programs based on multithreading.

Program:

```
import java.lang.*;
public class ThPri extends Thread
{
  public void run()
  {
     System.out.println("Inside the run() method");
  }
  public static void main(String args[])
  {
     ThPri th1=new ThPri();
     ThPri th2=new ThPri();
     ThPri th3=new ThPri();

     System.out.println("Priority of thread th1 is:" + th1.getPriority());
     System.out.println("Priority of thread th2 is:" + th2.getPriority());
     System.out.println("Priority of thread th3 is:" + th3.getPriority());

     th1.setPriority(6);
     th2.setPriority(3);
     th3.setPriority(9);

     System.out.println("Priority of thread th1 is:" + th1.getPriority());
     System.out.println("Priority of thread th2 is:" + th2.getPriority());
     System.out.println("Priority of thread th3 is:" + th3.getPriority());

     System.out.println("Currently Executing the thread:" +
Thread.currentThread().getName());
     System.out.println("Priority of the main thread is:" +
Thread.currentThread().getPriority());
     Thread.currentThread().setPriority(10);
     System.out.println("Priority of the main thread is:" +
Thread.currentThread().getPriority());
  }
}
```

**********OUTPUT**********


Command Prompt
C:\rupeshjava>javac ThPri.java
C:\rupeshjava>java ThPri
Priority of thread th1 is:5
Priority of thread th2 is:5
Priority of thread th3 is:5
Priority of thread th1 is:6
Priority of thread th2 is:3
Priority of thread th3 is:9
Currently Executing the thread:main
Priority of the main thread is:5
Priority of the main thread is:10
C:\rupeshjava>

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Assignment No. 11

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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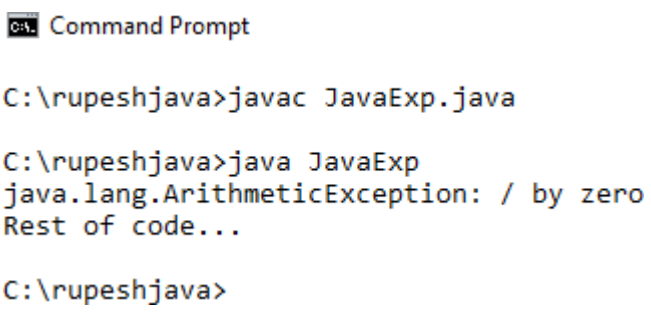
Q. Java programs based on exception handling.

Program:

```
import java.io.*;
public class JavaExp
{
  public static void main(String args[])
  {
    try
    {
      int data=100/0;
    }
    catch(ArithmeticException e)
    {
      System.out.println(e);
    }
    System.out.println("Rest of code...");
  }
}
```

**********OUTPUT**********



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Assignment No. 12

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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Q. Java program with Applets.

Program:

```
<html>
<body>
<applet code="First1.class" width="300" height="300">
</applet>
</body>
</html>
```

```
import java.applet.Applet;
import java.awt.Graphics;
public class First1 extends Applet
{
  public void paint(Graphics g)
  {
    g.drawString("Welcome to applet",150,150);
  }
}
```

**********OUTPUT**********

```
Microsoft Windows [Version 10.0.22621.1105]
(c) Microsoft Corporation. All rights reserved.

C:\Users\sneha>color 70

C:\Users\sneha>D:

D:\>cd Rupesh

D:\Rupesh>javac Second.java

D:\Rupesh>appletviewer Second.html
```


Applet Vie...
Applet
Welcome to applet
Applet started.

****