Question1-
Write a Java class which has a method called ProcessInput(). This method checks the number entered by the user. If the entered number is negative then throw an user defined exception called NegativeNumberException, otherwise it displays the double value of the entered number.

CODE:-

```
import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;

class MyException extends Exception
{
 public MyException(String str)
 {
  System.out.println(str);
 }
}

public class SignException {

 public static void main(String[] args)throws IOException {

  BufferedReader br = new BufferedReader(new
InputStreamReader(System.in));
  System.out.print("Input number :: ");

  try {
   int num = Integer.parseInt(br.readLine());
   if(num < 0)
    throw new MyException("Number is negative");
   else
    throw new MyException("Number is positive");
  }
  catch (MyException m) {
   System.out.println(m);
  }
 }

}
```

question-4-
Write a java program to create Account with 500 rupee minimum balance,deposit amount, withdraw amount and also throws LessBalanceException which returns the statement that says withdraw amount is not valid.

```
import java.io.*;
import java.lang.*;
class LessBalanceException extends Exception
{
 LessBalanceException(double amt)
 {
 System.out.println("Withdrawing "+amt+" is invlaid");
 }
}
class Account
{
 static int count=0;
 int accno;
 double bal;
 String name;
 Account(double bal,String n,int accno)
 {
  System.out.println("\nNew Account opened....!!");
  this.bal=bal;
  count++;
  System.out.println("Account Holder Name : " + n);
  name=n;
  System.out.println("Your Account Number is : "+accno);
  this.accno=accno;
  System.out.println("Total number of accounts : "+count);

 }
 void deposit(double amt)
 {
  System.out.println("Availabe Balance : "+bal);
  bal=bal+amt;
  System.out.println("Rs. : "+amt+" /- Created");
  System.out.println("Balance : "+bal);
 }
 void withdraw(double amt) throws LessBalanceException
 {
  System.out.println("\nAvailabe Balance : "+bal);
  bal-=amt;
  if(bal<500)
  {
   bal+=amt;
   throw new LessBalanceException(amt);
```

```
  }
  System.out.println("Rs. : "+amt+ "/-Debited");
  System.out.println("Balacne : "+bal);
 }
 void balance()
 {
  System.out.println("\n******Customer information*****");

System.out.println("=========================================
==");
  System.out.println("Customer Name : "+name);
  System.out.println("Account Number : "+accno);
  System.out.println("Balance : "+bal);
 }
}
class AccountDemo
{
 static int i=0;
 public static void main(String argv[]) throws IOException
 {
  Account ob[]=new Account[10];
  BufferedReader br=new BufferedReader(new
InputStreamReader(System.in));
  double amt;
  String name;
  int ch,accno,k;
  boolean t=false;
  while(true)
  {
   System.out.println("\n*** Bank Transaction ***");
   System.out.println("1.Open new Account\n2.Deposit");
   System.out.println("3.Withdraw\n4.Balance\n5.Exit");
   System.out.print("Enter your choice : ");
   ch=Integer.parseInt(br.readLine());
   switch(ch)
   {
   case 1:
   System.out.println("Opening New Account : ");
   System.out.print("Enter your name : ");
   name=br.readLine();
   System.out.print("\nEnter Account Number : ");
   accno=Integer.parseInt(br.readLine());
   System.out.print("\nEnter initial amount(to be >=500) : ");
   amt=Double.parseDouble(br.readLine());
   if(amt<500)
   System.out.println("You cannot create an account with less
than Rs.500/-");
   else
   {
```

```
 ob[i]=new Account(amt,name,accno);
 i++;
}
break;

case 2:
System.out.print("\nEnter Account number : ");
accno=Integer.parseInt(br.readLine());
for(k=0;k<i;k++)
if(accno==ob[k].accno)
{
 t=true;
 break;
}

if(t)
{
 System.out.print("\nEnter the Amount for Deposit : ");
 amt=Double.parseDouble(br.readLine());
 ob[k].deposit(amt);
}
else
System.out.println("Invalid Account Number...!!!");
t=false;
break;

case 3:
System.out.print("\nEnter Account number : ");
accno=Integer.parseInt(br.readLine());
for(k=0;k<i;k++)
if(accno==ob[k].accno)
{
 t=true;
 break;
}

if(t)
{
 System.out.print("\nEnter the Amount for Withdraw : ");
 amt=Double.parseDouble(br.readLine());
 try
 {
  ob[k].withdraw(amt);
 }
 catch(LessBalanceException e)
 {}
}
else
System.out.println("Invalid Account Number...!!!");
```

```
    t=false;
    break;

    case 4:
    System.out.print("\nEnter Account number : ");
    accno=Integer.parseInt(br.readLine());
    for(k=0;k<i;k++)
    if(accno==ob[k].accno)
    {
     t=true;
     break;
    }

    if(t)
    {
     //System.out.println(accno +" asdfsdf " +ob[k].accno);
     ob[k].balance();
    }
    else
    System.out.println("Invalid Account Number...!!!");
    t=false;
    break;

    case 5:
    System.exit(1);
    default: System.out.println("Invalid Choice !!!");
    }
   }
  }
 }
```

question3-

Create an user defined exception named Check Argument to check the number of arguments passed through command line. If the number of arguments is less than four, throw the Check Argument exception, else print the addition of squares of all the four elements

```
class CheckArgument extends Exception{
}

class command
{
     public static void main(String ag[]){
         int i,j;
         int ans=0;
         int s[]=new int[5];
         try
        {
              int cnt=0;
              for(i=0;i<s.length;i++)
             {
                    s[i]=Integer.parseInt(ag[i]);
                    cnt++;
                    if(ag.length<5){
                          throw new CheckArgument();
                    }
                    else if(ag.length>5){
                           throw new CheckArgument();
                    }
             }

             for(i=0;i<s.length;i++)
            {
                  ans=ans+s[i];
             }
   }
   catch(CheckArgument m)
  {
         System.out.println("Passed 5 Integer");
   }
   System.out.println("The sum is"+ans);
  }
}
```

```
import java.util.Scanner;

class TIME_Exception extends Exception
 {
    public TIME_Exception()
     {
        super("Invalid Time");
    }
}

class time
{
    int h, m, s;
    Scanner sc = new Scanner(System.in);

    time() {
        h = sc.nextInt();
        m = sc.nextInt();
        s = sc.nextInt();
    }
}

public class Q2 {
    public static void main(String[] args)
     {
        time p = new time();
        if (p.h > 23 || p.m > 59 || p.s > 59)
         {
            try {
                throw new TIME_Exception();
            } catch (TIME_Exception e) {
                System.out.println(e);
            }
        }
        else
         {
            System.out.println("Valid Time");
        }

    }
}
```