Savitribai Phule Pune University

T.Y.B.B.A.(C.A.) Semester – VI (CBCS 2019 Pattern) University Practical Examination Lab Course: (CA-606) Computer Laboratory Based on 603, 604

Advanced Java, Android / Dot Net Framework

Time: - 3 Hours] [Marks: - 100

Q1 Write a java program to scroll the text from left to right and vice versa continuously. [15 M]

```
import java.awt.*;
import java.awt.event.*;
class MoveText extends Frame implements Runnable
{
Label l1;
Thread t;
int x,y,side;
public MoveText()
{
setLayout(null);
l1=new Label(" HelloJava");
l1.setFont(new Font("",Font.BOLD,14));
l1.setForeground(Color.red);
setSize(400,400);
setVisible(true);
t=new Thread(this);
t.start();
x=5;
y=200;side=1;
addWindowListener(new WindowAdapter()
{
public void windowClosing(WindowEvent we)
{
System.exit(0);
}
});
}
public void run()
{
try
{
if(side==1)
{
t.sleep(50);
l1.setBounds(x+=5,y-=5,70,15);
add(l1);
if(y==20)
side=2;
```

```
}
if(side==2)
{
t.sleep(50);
l1.setBounds(x+=5,y+=5,70,15);
add(l1);
if(y==200)
side=3;
}
if(side==3)
{
t.sleep(50);
l1.setBounds(x-=5,y+=5,70,15);
add(l1);
if(y==390)
side=4;
}
if(side==4)
{
t.sleep(50);
l1.setBounds(x-=5,y-=5,70,15);
add(l1);
if(x==0)
{
side=1;
x=0;y=200;
}
}
}catch(Exception e)
{
System.out.println(e);
}
run();
}
public static void main(String args[])
{
new MoveText();
}
}
```

or

```
import java.awt.*;
import java.awt.event.*;
```

```
class MovingText extends Frame implements Runnable{
	private int x,y,w,h,f;

	public MovingText(){
		setTitle("Moving Text");
		setSize(400,400);
		setVisible(true);

		addWindowListener(new WindowAdapter(){
			public void windowClosing(WindowEvent we){
				System.exit(0);
			}
		});

		w = getWidth();
		h = getHeight();

		x = 0;
		y = h/2;

		Thread t = new Thread(this);
		t.start();
	}

	public void run(){
		while(true){
			switch(f){
			case 0:
				x++;
				y--;
				if(x==w/2 && y==0) f=1;
				break;
			case 1:
				x++;
				y++;
				if(x==w && y==h/2) f=2;
				break;
			case 2:
				x--;
				y++;
				if(x==w/2 && y==h) f=3;
				break;
			case 3:
				x--;
```

```
                        y--;
                        if(x==0 && y==h/2) f=0;
                }
                repaint();
                try{
                        Thread.sleep(100);
                }catch(Exception e){}
        }
    }

    public void paint(Graphics g){
        super.paint(g);
        g.drawString("Hello",x,y);
    }

    public static void main(String args[]){
        new MovingText();
    }
}
```

2. Write a socket program in java for chatting application.(Use Swing)

Clint side :-

```
import java.io.*;
import java.net.*;

public class Clientside
 {
   public static void main(String[] args)
   {
        Boolean b=true;
        try
        {
                Socket s1=new Socket("localhost",40);
                DataInputStream in1=new DataInputStream(s1.getInputStream());
                DataInputStream out1=new DataInputStream(s1.getoutputStream());
                PrintStream pw=new PrintStream(out1);
          System.out.println("Seand massage");
          while(b)
          {
                DataInputStream in=new DataInputStream(System.in);
                String str=in.readLine();
                if(str1.equals("quit"))
                        b=false;
```

```
                    else
                    {
                            pw.println(str1);
                            String str1=in.readLine();
                            System.out.println(str2);

                    }
            }
        }
        catch(Exception e)
        {

                System.out.println(e);
        }

    }
 }
```

Server Side:-

```
import java.io.*;
import java.net.*;
public class Serverside
 {
   public static void main(String[] args)
   {
        Boolean b=true;
        try
        {
                ServerSocket s=new ServerSocket(40);
                ServerSocket s1=s.accept();
                DataInputStream in1=new DataInputStream(s1.getInputStream());
                DataInputStream out1=new DataInputStream(s1.getoutputStream());
                PrintStream pw=new PrintStream(out1);

           while(b)
           {

                String str=in.readLine();
                if(str1.equals("quit"))
                        b=false;
                        else
                        {
                                System.out.println(str1);
                                DataOutputStream in=new DataOutputStream(System.in);
                                String str=in.readLine();
                                pw.println(str2);


                        }
           }
        }
```

```
        catch(Exception e)
        {

                System.out.println(e);
        }

  }
}
```

Q.2 Dot Net Framework:

3. Write a VB.Net Program to display the numbers continuously in Textbox by clicking on Button. [15 M]

```
Public Class Form1
Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles
MyBase.Load
    Timer1.Start()
  End Sub
  Private Sub Timer1_Tick(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles
Timer1.Tick
Dim c as integer=0
    Textbox1.text= c+1
  End Sub
End Class
```

4. Write a VB.Net program to accept the details of Employee (ENO, EName Salary) and store it into the database and display it on grid view control. [25 M]

```
Imports System.Data.OleDb

Public Class Form1
  Dim con As OleDbConnection
  Dim com As OleDbCommand
  Dim adp As OleDbDataAdapter
  Dim dt As New DataTable
  Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles
Button1.Click
con = New OleDb.OleDbConnection("Provider=Microsoft.ACE.OLEDB.12.0;Data
Source=C:\Users\COMP 1\Desktop\employee.accdb")
    con.Open()
    com = New OleDbCommand("select * from emp", con)
    MsgBox("connected")

    adp = New OleDbDataAdapter(com)
    adp.Fill(dt)
    DataGridView1.DataSource = dt

  End Sub
End Class
```

SLIP-2

1. Write a JSP program to check whether given number is Perfect or not. (Use Include directive).

Perfect.html

```
<html>
<head>
<title><</title>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
</head>
<body>
<form action="perfect.jsp" method="post">
Enter Number :
<input type="text" name="num">
<input type="submit" value="submit">
</form>
</body>
</html>
```

perfect.jsp FILE:

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<%
intnum = Integer.parseInt(request.getParameter("num"));
int n = num;
int rem, sum, i = 0;
while(i<num)
{
rem = n % i;
if(rem == 0)
{

sum=sum + i;
i=i+1;
}
if(sum == num)
{
out.println("\nperfect Number");
}
else
{
out.println("Not perfect number");
}
%>
```

2. Write a java program in multithreading using applet for drawing flag.

```
/*<applet code=FlagDraw width=500 height=500>
</applet>*/

import java.applet.Applet;
import java.awt.Color;
import java.awt.Graphics;

public class FlagDraw extends Applet implements Runnable {

        Thread t;
        //4 variables used to vary the car's positions.
        int x1=200,x2=200,y1=500,y2=250,y3 = 0,x3=200,maxY=0,maxX = 0,maxY3=0,maxX3=0;
        public void start()
        {
         if(t==null)
         {
          t=new Thread(this,"New Thread");//New side Thread created on start of applet.
          t.start();
         }
        }
        public void stop()
        {
         if(t!=null)
         {
          t=null;//On stop of applet the created thread is destroyed.
         }
        }
        //Implementation of method run() of Runnable interface.
        public void run()
        {

         while(true)
         {
          repaint();
          try
          {
           Thread.sleep(300);
          }
          catch(Exception e)
          {   }
         }
        }
        public void paint(Graphics g)
        {
         setBackground(Color.cyan);
```

```
y2=y2-19%100;


g.setColor(Color.BLACK);

if(y2 >= 0){
  g.drawLine(x1,y1,x1,y2);
  maxY = y2;

} else if (x2 >= x1){
  x2=x2+16%400;
  if(x2 <= 500){
     g.drawLine(x1,y1,x1,maxY);
     g.drawLine(x1,maxY,x2,maxY);
     maxX = x2;

  } else if(y3 <= 150){
     g.drawLine(x1,y1,x1,maxY);
     g.drawLine(x1,maxY,maxX,maxY);
     y3=y3+16%400;
     g.drawLine(maxX, maxY,maxX, y3);
     maxY3 = y3;
     x3 =maxX;
  } else {
     g.drawLine(x1,y1,x1,maxY);
     g.drawLine(x1,maxY,maxX,maxY);
     g.drawLine(maxX, maxY,maxX, maxY3);
     if(x3 >= (x1+12)){
       x3-=16%400;
       maxX3=x3;
       g.drawLine(maxX, maxY3,x3 , maxY3);
     } else {
            g.drawLine(maxX, maxY3,maxX3 , maxY3);
     }


  }


  }
 }

}
```

Q.2 Dot Net Framework:

3. Write a Vb.Net program to move the Text “Pune University” continuously from Left to Right and Vice Versa.

```
Public Class Form1
Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles
MyBase.Load
        Timer1.Start()
    End Sub
    Private Sub Timer1_Tick(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Timer1.Tick
        If Label1.Left > 400 Then
            Label1.Left = 10
        End If
        Label1.Left = Label1.Left + 15
    End Sub
End Class
```

2. Write a C#.Net program to create a base class Department and derived classes Sales and Human Resource. Accept the details of both departments and display them in proper format. [25 M]

SLIP-3

1. Write a socket program in Java to check whether given number is prime or not. Display result on client terminal.[15 M]

```
package prime;

import java.util.Scanner;
public class PrimeNumberProgram
{
static boolean checkForPrime(int inputNumber)
{
boolean isItPrime = true;
if(inputNumber <= 1)
{
isItPrime = false;
return isItPrime;
}
else
{
for (int i = 2; i<= inputNumber/2; i++)
{
if ((inputNumber % i) == 0)
{
isItPrime = false;
break;
}
}
return isItPrime;
}
}
```

```
public static void main(String[] args)
{
Scanner sc = new Scanner(System.in);
System.out.println("Enter a number :");
int inputNumber = sc.nextInt();
boolean isItPrime = checkForPrime(inputNumber);
if (isItPrime)
{
System.out.println(inputNumber+" is a prime number.");
}
else
{
System.out.println(inputNumber+" is not a prime number.");
}
sc.close();
}
}
```

2. Write a java program using applet for bouncing ball, for each bounce color of ball should change randomly.[25 M]

```
import java.awt.*;
import java.awt.event.*;
class BouncingBall extends Frame implements Runnable{
        private int x,y,w,h,f;
        private Color c=Color.RED;
        public BouncingBall(){
        setTitle("Bouncing Balling");
        setSize(400,400);
        setVisible(true);
        addWindowListener(new WindowAdapter(){
        public void windowClosing(WindowEvent we){
        System.exit(0);
        }
        });
w = getWidth();
h = getHeight();
x = (int)(Math.random()*w);
y = (int)(Math.random()*h);
Thread t = new Thread(this);
        t.start();
}
        public void run(){
        while(true){
        switch(f){
        case 0:
        y++;
        if(y>h-50){
        c = new Color((int)(Math.random()*256),
```

```
            (int)(Math.random()*256),
            (int)(Math.random()*256));
            f=1;
    }                                                                                    break;
            case 1:
            y--;
            if(y<0){
            c = new Color((int)(Math.random()*256),
            (int)(Math.random()*256),
            (int)(Math.random()*256));
            f=0;
            }
            }
            repaint();
            try{
            Thread.sleep(100);
            }catch(Exception e){}
            }
            }
            public void paint(Graphics g){
            super.paint(g);
            g.setColor(c);
            g.fillOval(x,y,50,50);
            }
            public static void main(String args[]){
            new BouncingBall();
            }
    }
```

or

```
 import java.awt.*;
/*<applet code="BounsingBall.class" height=400 width=350></applet>*/
public class BounsingBall extends java.applet.Applet implements Runnable
{
   Thread t;
   int f,y,f1,f2,f3;
   public void init()
   {
         t=new Thread(this);
         t.start();
        f=0;  y=0;  f1=0;
   }
   public void run()
   {   try{
       if (f==0){      t.sleep(10);
                      y=y+5;
```

```
                    repaint();
                    if(f1==6)
                    f1=0;
                  }
        if(f==1) {   t.sleep(10);
                    y=y-5;
                   repaint();
                  if(f1==6)
                   f1=0;
                 }
        }catch(Exception e){ }
        run();
    }
    public void paint(Graphics g)
    {
       if(f==0) {
                 if(f1==1)
                g.setColor(Color.green);
                if(f1==2)
                g.setColor(Color.blue);
                if(f1==3)
                g.setColor(Color.red);
                if(f1==4)
                g.setColor(Color.yellow);
                if(f1==5)
                g.setColor(Color.orange);
                g.fillOval(150,y+10,20,20);
                if(y==400)
                 {
                      f1++;  f=1;
                  }
             }
       if(f==1) {
                 if(f1==1)
                g.setColor(Color.green);
                if(f1==2)
                g.setColor(Color.blue);
                 if(f1==3)
                 g.setColor(Color.red);
                if(f1==4)
                g.setColor(Color.yellow);
               if(f1==5)
               g.setColor(Color.orange);
               g.fillOval(150,y-10,20,20);
                if(y==0)
                 {
                      f1++; f=0;
                  }
             }
     }
}
```

or

```
/*<applet code=BOUNCINGBALLS width=500 height=500>
</applet>*/
import java.applet.*;
import java.awt.*;
import java.awt.event.*;

public class BOUNCINGBALLS extends Applet implements MouseListener, Runnable
{
   Thread t=null;
   int x1=10, x2=10, x3=10, x4=10;
   int y1=300, y2=300, y3=300, y4=300;
 int flagx1,flagy1,flagx2,flagy2;
 int flagx3,flagy3,flagx4,flagy4;

public void init()
    {
       addMouseListener(this);
    }
   public void mouseExited(MouseEvent me)   {}
   public void mouseReleased(MouseEvent me) {}
   public void mouseEntered(MouseEvent me)  {}
   public void mousePressed(MouseEvent me)  {}
   public void mouseClicked(MouseEvent me)  {}
public void start()
   {
      t=new Thread(this);
      t.start();
   }

   public void run()
   {
      for(;;)
      {
         try
         {
            repaint();
   if(y1<=50)
   flagx1=0;
   else if(y1>=300)
   flagx1=1;
   if(x1<=10)
   flagy1=0;
   else if(x1>=400)
   flagy1=1;
   if(y2<=50)
```

```
flagx2=0;
    else if(y2>=300)
    flagx2=1;
    if(x2<=10)
    flagy2=0;
    else if(x2>=400)
    flagy2=1;
    if(y3<=50)
    flagx3=0;
    else if(y3>=300)
    flagx3=1;
    if(x3<=10)
    flagy3=0;
    else if(x3>=400)
    flagy3=1;
    if(y4<=50)
    flagx4=0;
    else if(y4>=300)
    flagx4=1;
    if(x4<=10)
flagy4=0;
    else if(x4>=400)
    flagy4=1;
                Thread.sleep(10);
            }catch(InterruptedException e){}
        }
    }
    public void paint(Graphics g)
    {
  g.drawRect(10,50,410,270);

        g.setColor(Color.blue);
        g.fillOval(x1,y1,20,20);
  if(flagx1==1)
   y1-=2;
  else if(flagx1==0)
   y1+=2;
  if(flagy1==0)
   x1+=4;
else if(flagy1==1)
   x1-=4;
        g.setColor(Color.red);
        g.fillOval(x2,y2,20,20);
  if(flagx2==1)
   y2-=4;
  else if(flagx2==0)
   y2+=4;
  if(flagy2==0)
   x2+=3;
  else if(flagy2==1)
   x2-=3;
```

```
        g.setColor(Color.yellow);
        g.fillOval(x3,y3,20,20);
  if(flagx3==1)
   y3-=6;
  else if(flagx3==0)
   y3+=6;
  if(flagy3==0)
   x3+=2;
  else if(flagy3==1)
   x3-=2;
g.setColor(Color.magenta);
        g.fillOval(x4,y4,20,20);
  if(flagx4==1)
   y4-=5;
  else if(flagx4==0)
   y4+=5;
  if(flagy4==0)
   x4+=1;
  else if(flagy4==1)
   x4-=1;
    }
          }
```

Dot Net Framework:

1. Write a program in C# .Net to create a function for the sum of two numbers.[15 M]

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;

namespace ConsoleApplication4
{
   class Program
   {
      static void Main(string[] args)
      {
         Console.Write("\n\nFunction to calculate the sum of two numbers :\n");
         Console.Write("-------------------------------------------------\n");
         Console.Write("Enter a number: ");
         int n1 = Convert.ToInt32(Console.ReadLine());
         Console.Write("Enter another number: ");
         int n2 = Convert.ToInt32(Console.ReadLine());
         Console.WriteLine("\nThe sum of two numbers is : {0} \n", Sum(n1, n2));
         Console.ReadLine();

      }
      public static int Sum(int num1, int num2)
      {
         int total;
         total = num1 + num2;
```

```
            return total;
        }
    }
}
```

2. Write a VB.NET program to create teacher table (Tid, TName, subject) Insert the records (Max: 5). Search record of a teacher whose name is “Seeta” and display result.

```
Imports System.Data.SqlClient
Public Class frmTeacher
Dim cn As New SqlConnection
Dim cmd As New SqlCommand
Dim dt As New DataTable
Dim dataadapater As New SqlDataAdapter
Dim str As String
Dim n As Integer

Private Sub cmdAddNew_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles cmdAddNew.Click
txtTid.Clear()
txtSub.Clear()
txtTname.Clear()
txtTid.Focus()
End Sub

Private Sub cmdSave_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles cmdSave.Click
cn = New SqlConnection("Data Source=Bhushan\SQLEXPRESS;Initial
Catalog=teacher;Integrated Security=True;Pooling=False")
cn.Open()
str = "insert into teacher values(" & CInt(txtTid.Text) & ",'" & txtTname.Text & "','" & txtSub.Text
& "')"
cmd = New SqlCommand(str, cn)
n = cmd.ExecuteNonQuery
If (n > 0) Then
MsgBox("Record Inserted Successfully")
End If
cn.Close()
End Sub

Private Sub cmdSearch_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles cmdSearch.Click
cn = New SqlConnection("Data Source=Bhushan\SQLEXPRESS;Initial
Catalog=teacher;Integrated Security=True;Pooling=False")
cn.Open()
str = "select * from teacher where Name='Seeta'"
cmd = New SqlCommand(str, cn)
dataadapater = New SqlDataAdapter(cmd)
dataadapater.Fill(dt)
DataGridView1.DataSource = dt
cn.Close()
```

```
End Sub

Private Sub cmdShow_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles cmdShow.Click
DataGridView1.DataSource = Nothing
cn = New SqlConnection("Data Source=Bhushan\SQLEXPRESS;Initial
Catalog=teacher;Integrated Security=True;Pooling=False")
cn.Open()
str = "select * from teacher"
cmd = New SqlCommand(str, cn)
dataadapater = New SqlDataAdapter(cmd)
dataadapater.Fill(dt)
DataGridView1.DataSource = dt
cn.Close()
End Sub
End Class
```

SLIP4.

SLIP4Q1 Advanced Java:

Write a Java Program to delete details of students whose initial character of their name is 'S'.[15 M]

```
import java.sql.*;
public class DeleteEmployeeRecord
{       static Connection cn;
        static Statement st;
        public static void main(String args[])
        {    try {
                        ResultSet rs,rs1;
                        Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
                        cn=DriverManager.getConnection("jdbc:odbc:emp1");
                        st=cn.createStatement();
                        System.out.println("\nBefore deleting records are :");
                        rs=st.executeQuery("select * from employees");
                        System.out.println("\nEno \t  Ename\t Sal \n");
                        while(rs.next())
                        {
                        System.out.println(rs.getInt("eno")+"\t"+rs.getString("ename")+"\t"+rs.getInt("sal"));
                        }
                        st.executeUpdate("delete from employees where ename like 'A%'");
                        System.out.println("\nAfter deleting records are :");
                        rs1=st.executeQuery("select * from employees");
                        System.out.println("\nEno \t  Ename\t Sal \n");
                        while(rs1.next())
                       {

System.out.println(rs1.getInt("eno")+"\t"+rs1.getString("ename")+"\t"+rs1.getInt("sal"));
                        }
                        cn.close();
                }catch(Exception e)
                    {
                         System.out.println(e);
                    }
```

```
        }
}
```

A)

B) Write a SERVLET program that provides information about a HTTP request from a client, such as IP address and browser type. The servlet also provides information about the server on which the servlet is running, such as the operating system type, and the names of currently loaded servlets.[25 M]

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class Servleti extends HttpServlet
{
protected void service(HttpServletRequest req, HttpServletResponse res)throws ServletException, IOException
        {
                PrintWriter out=response.getWriter();
                out.println("The server name is"+reqest.getServerName()+"<br>");

                out.println("The server post number is"+reqest.getServerPost()+"<br>");

                out.prinln("The protocal is "+ request.getProtocol()+"<br>");
                out.println("The scheme used is "+request.getScheme());
        }
```

OR

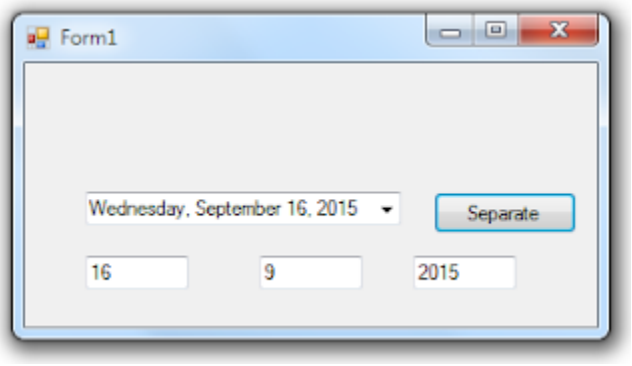
```
import java.net.InetAddress;
import java.net.UnknownHostException;
public class getiphost {
public static void main(String[] args) {

try {
InetAddress inetAddr = InetAddress.getLocalHost();
byte[] addr = inetAddr.getAddress();
// Convert to dot representation
        String ipAddr = "";
for (int i = 0; i < addr.length; i++) {
if (i > 0) {
ipAddr += ".";
}
ipAddr += addr[i] & 0xFF;
}
String hostname = inetAddr.getHostName();
        System.out.println("IP Address: " + ipAddr);

System.out.println("Hostname: " + hostname);
}
catch (UnknownHostException e) {
```

```
System.out.println("Host not found: " + e.getMessage());
}
}
}
```

Q.2 Dot Net Framework:

2. Design a VB.net form to pick a date from DateTimePicker Control and display day, month and year in separate text boxes.[15 M]

```
Public Class Format
Private Sub Button2_Click (ByVal Sender As System.Oject, ByVal e As System.Event Args) Handles Button2_Click
TextBox1.Text = Format (DateTimePicker1.value,"d")
TextBox2.Text = DateTimePicker1.value.month
TextBox3.Text = DateTimePicker1.value.year
  End sub
  End class
```



3. Create a web application to insert 3 records inside the SQL database table having following fields (DeptId, DeptName, EmpName, Salary). Update the salary for any one employee and increment it to 15% of the present salary. Perform delete operation on one row of the database table. [25 M]

SLIP5

Q.1. Advanced Java:

A) Write a JSP program to calculate sum of first and last digit of a given number. Display sum in Red Color with font size 18.[15 M]

Number.html

```
<html>
<body>
<form method=get action="Number.jsp">
Enter Any Number : <Input type=text name=num><br><br>
<input type=submit value=Calculate>
</form>
</body>
</html>
```

Number.jsp

```
<html>
```

```
<body>
<%! int n,rem,r; %>
<% n=Integer.parseInt(request.getParameter("num"));
     if(n<10)
    {
      out.println("Sum of first and last digit is   ");
%><font size=18 color=red><%= n %></font>
<%
    }
   else
   {
     rem=n%10;
     do{
            r=n%10;
            n=n/10;
        }while(n>0);
       n=rem+r;
      out.println("Sum of first and last digit is    ");
%><font size=18 color=red><%= n %></font>
<%
    }
%>
</body>
</html>
```

B) Write a java program in multithreading using applet for Traffic signal. [25 M]

```
 import java.awt.*;
/*<applet code="signal.class" height=450 width=350>
</applet>*/
public class signal extends java.applet.Applet implements Runnable
{
     Thread t;
      int r,g1,y,i;
   public void init()
   {
         t=new Thread(this);
          t.start();
         r=0; g1=0; i=0; y=0;
   }
   public void run()
   {
  try{
        for(i=24;i>=1;i--)
        {
          if (i>16&&i<=24)  {          t.sleep(200);
                                      r=1;
                                     repaint();
                                }
          if (i>8&&i<=16)    {          t.sleep(200);
                                        y=1;
                                        repaint();
```

```
                                }
        if(i>1&&i<=8)        {          t.sleep(200);
                                        g1=1;
                                        repaint();
                                }
     }
    if (i==0){
                run();
            }
        }catch(Exception e){ }
   }
   public void paint(Graphics g)
   {
       g.drawRect(100,100,100,300);
      if (r==1)  {
      g.setColor(Color.red);
                    g.fillOval(100,100,100,100);
                    g.setColor(Color.black);
                    g.drawOval(100,200,100,100);
                    g.drawOval(100,300,100,100);
                   r=0;
                }
       if (y==1)   {
              g.setColor(Color.black);
                            g.drawOval(100,100,100,100);
                            g.drawOval(100,300,100,100);
                             g.setColor(Color.yellow);
                            g.fillOval(100,200,100,100);
                           y=0;
                    }
      if (g1==1)   {            g.setColor(Color.black);
                           g.drawOval(100,100,100,100);
                          g.drawOval(100,200,100,100);
                           g.setColor(Color.green);
                            g.fillOval(100,300,100,100);
                           g1=0;
                }
        }
}
```

Q.2. Dot Net Framework:

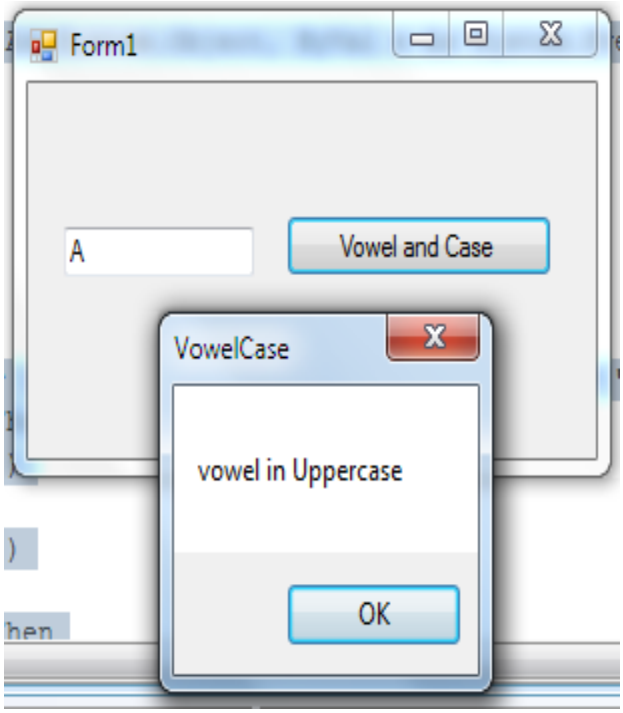
A) Write a VB.NET program to accept a character from keyboard and check whether it is vowel or consonant. Also display the case of that character.[15 M]

```
Public Class Form1
Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button1.Click
    Dim ch As Char
    ch = TextBox1.Text
    Select Case ch
```

```
            Case "A", "E", "I", "O", "U"
                MessageBox.Show(ch + " is Vowel And UpperCase")
            Case "a", "e", "i", "o", "u"
                MessageBox.Show(ch + " is Vowel And LowerCase")
            Case Else
                MessageBox.Show(ch + " is Not Vowel")
        End Select
    End Sub
End Class
```

or

```
Public Class Form1
    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles
Button1.Click
        Dim c As String
        Dim asc1 As Integer
        c = TextBox1.Text
        asc1 = Asc(c)
        ' MsgBox(asc1)
        If c = "a" Or c = "A" Or c = "e" Or c = "E" Or c = "i" Or c = "I" Or c = "o" Or c = "O" Or c = "u" Or c =
"U" Then
            If asc1 <= 122 And asc1 >= 97 Then
                MsgBox("vowel in Lowercase")
            Else
                MsgBox("vowel in Uppercase")
            End If
        ElseIf asc1 <= 122 And asc1 >= 97 Then
            MsgBox("Not Vowel in Lowercase")
        Else
            MsgBox("Not Vowel in Uppercase")
        End If
    End Sub
End Class
```



B) Design a web application form in ASP.Net having loan amount, interest rate and duration fields. Calculate the simple interest and perform necessary validation i.e. Ensures data has been entered for each field. Checking for non-numeric value. Assume suitable web-form controls and perform necessary validation.[25 M]

SLIP6

Q.1. Advanced Java:

A) Write a java program to blink image on the Frame continuously.[15 M]

```
import java.awt.*;
import java.awt.event.*;
public class BlinkText extends Frame implements Runnable
{
        Thread t;
        Label l1;
        int f;
        public BlinkText()
        {
                t=new Thread(this);
                t.start();
                setLayout(null);
                l1=new Label("Hello JAVA");
                l1.setBounds(100,100,100,40);
                add(l1);
                setSize(300,300);
                setVisible(true);
                f=0;
        }
        public void run()
        {
```

```
            try
            {
                if(f==0)
                {
                    t.sleep(200);
                    l1.setText("");
                    f=1;
                }
                if(f==1)
                {
                    t.sleep(200);
                    l1.setText("Hello Java");
                    f=0;
                }
            }catch(Exception e)
            {
                System.out.println(e);
            }
            run();
        }
        public static void main(String args[])
        {
            new BlinkText();
        }
}
```

or

```
        import java.awt.Graphics;
        import java.awt.Graphics2D;
        import java.awt.GraphicsConfiguration;
        import java.awt.GraphicsDevice;
        import java.awt.GraphicsEnvironment;
        import java.awt.Image;
        import java.awt.image.BufferedImage;
        import javax.swing.Icon;
        import javax.swing.ImageIcon;
        import javax.swing.JLabel;
        import javax.swing.JLayeredPane;
        public class BlinkingLabel extends JLabel implements Runnable{
        private boolean show=false,blink=true;
        private Icon iconImg;
        private JLayeredPane parent;
        public BlinkingLabel(Icon icon, JLayeredPane pane)
        {
        super(icon);
        this.iconImg = icon;
        this.parent = pane;
```

```
this.setVisible(true);
new Thread(this).start();
}
public void run() {
while (blink) {
show=!show;
if(show)
parent.moveToFront(this);
else
parent.moveToBack(this);
repaint();
try { Thread.sleep(400); } catch (Exception e) { }
}
}
public boolean isBlink() {
return blink;
}
public void setBlink(boolean blink) {
this.blink = blink;
}
}
```

B) Write a SERVLET program which counts how many times a user has visited a web page. If user is visiting the page for the first time, display a welcome message. If the user is revisiting the page, display the number of times visited. (Use Cookie)

[25 M]

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class slip6 extends HttpServlet
{
  static int i=1;
  public void doPost(HttpServletRequest req, HttpServletResponse res)throws IOException ,
ServletException
 {
    res.setContentType("text/html");
    PrintWriter p=res.getWriter();
    String k=String.valueOf(i);
    Cookie ck=new Cookie("name",k);
    res.addCookie(ck);
    int j=Integer.parseInt(ck.getValue());
    if(j==1)
    {
      p.println("welcome to web page");
    }

    else
    {
       p.println("you are visited"+i+"times");
    }
```

```
  i++;
  p.close();
}
}
```

cookie.html

```
<html>
<body>
<form action="http://localhost:8085/ty/slip6" method="post">
name:<input type="text" name="name">
<input type="submit" value="submit">
</form>
</body>
</html>
```

web.html

```
<web-app >
  <servlet>
        <servlet-name>slip6</servlet-name>
        <servlet-class>slip6</servlet-class>
  </servlet>
    <servlet-mapping>
        <servlet-name>slip6</servlet-name>
        <url-pattern>/slip6</url-pattern>
  </servlet-mapping>

</web-app>
```

Q.2 Dot Net Framework:

A) Write ASP.Net program that displays the names of some flowers in two columns. Bind a label to the RadioButtonList so that when the user selects an option from the list and clicks on a button, the label displays the flower selected by the user.
[15 M]

B) Write a VB.NET program to create movie table (Mv_Name, Release_year, Director). Insert the records (Max: 5). Delete the records of movies whose release year display appropriate message in message box [25M]

```
Public Class Form1
   Dim cn As New OleDb.OleDbConnection
   Dim cmd As New OleDb.OleDbCommand
   Dim dt As New DataTable
   Dim dataadapter As New OleDb.OleDbDataAdapter
   Dim str As String
   Dim n As Integer
Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button1.Click
      TextBox1.Clear()
      TextBox2.Clear()
```

```
        TextBox3.Clear()
        TextBox1.Focus()
    End Sub
Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button2.Click
cn = New OleDb.OleDbConnection("Provider=Microsoft.ACE.OLEDB.12.0;Data
Source=Database3.accdb")
cn.Open()
str = "insert into Movie(mname,ryear,director) values('" & TextBox1.Text & "'," & TextBox2.Text &
",'" & TextBox3.Text & "')"
cmd = New OleDb.OleDbCommand(str, cn)
n = cmd.ExecuteNonQuery()
If (n > 0) Then
MsgBox("Record Inserted successfully")
End If
cn.Close()
End Sub

Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button3.Click
DataGridView1.DataSource = Nothing
cn = New OleDb.OleDbConnection("Provider=Microsoft.ACE.OLEDB.12.0;Data
Source=Database3.accdb")
cn.Open()
str = "select * from Movie"
cmd = New OleDb.OleDbCommand(str, cn)
dataadapter = New OleDb.OleDbDataAdapter(cmd)
dataadapter.Fill(dt)
DataGridView1.DataSource = dt
cn.Close()
End Sub

Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button4.Click
DataGridView1.DataSource = Nothing
cn = New OleDb.OleDbConnection("Provider=Microsoft.ACE.OLEDB.12.0;Data
Source=Database3.accdb")
cn.Open()
str = "delete * from Movie where ryear=2022"
cmd = New OleDb.OleDbCommand(str, cn)
n = cmd.ExecuteNonQuery()
If n > 0 Then
MsgBox("Record Deleted Successfully")
End If
cn.Close()
End Sub
End Class
```

SLIP7

Q.1. Advanced Java:

A) Write a JSP script to validate given E-Mail ID. [15 M]

Email.html

```
<html>
<body>
<form name=f1 action="http://localhost:8080/email.jsp">
<fieldset>
<legend>Enter Email Id...!!!</legend>
      Enter Email Id:<input type="text" name="t1" >
</fieldset>
<div align=center>
<input type="submit" name="Submit" value="Submit">
</div>
</form>
</body>
</html>
```

Emailcheck.jsp

```
<html>
<body>
<%@ page language="java" %>
<%
      String email=request.getParameter("t1");
      if(email.contains("@") && email.contains("."))
      {
      out.println("Given Email Id is Valid");
      }
      else      {
      out.println("Given Email id is not Valid");
      }
      %>
</body>
</html>
```

Q2. Write a Multithreading program in java to display the number's between 1 to 100 continuously in a TextField by clicking on button. (use Runnable Interface).[25 M]

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;
public class MultiThread extends JFrame implements ActionListener
{
   Container cc;
   JButton b1,b2;
   JTextField t1;
   MultiThread()
   {
      setVisible(true);
      setSize(1024,768);
      cc=getContentPane();
      setLayout(null);
      t1=new JTextField(500);
```

```
        cc.add(t1);
        t1.setBounds(10,10,1000,30);
        b1=new JButton("start");
        cc.add(b1);
        b1.setBounds(20,50,100,40);
        b1.addActionListener(this);
        setDefaultCloseOperation(EXIT_ON_CLOSE);
    }
    public void actionPerformed(ActionEvent e)
    {
        if(e.getSource()==b1)
        {
            new Mythread();
        }
    }
    class Mythread extends Thread
    {
        Mythread()
        {
        start();
        }
        public void run()
        {
            for(int i=1;i<=100;i++)
            {
                try             {
                    Thread.sleep(1000);
                }
                catch (InterruptedException e) {
                }
                t1.setText(t1.getText()+""+i+"\n");
 //System.out.println()          }
        }
    }
    public static void main(String arg[])
    {
        new MultiThread().show();
    }
}
```

Q.2 Dot Net Framework:

A) Write a ASP.Net program to accept a number from the user in a textbox control and throw an exception if the number is not a perfect number. Assume suitable controls on the web form.

B) Write a VB.NET program to create a table student (Roll No, SName, Class,City). Insert the records (Max: 5). Update city of students to ‘Pune’ whose city is ‘Mumbai’ and display updated records in GridView.

SLIP8

Q.1. Advanced Java:

A. Write a Java Program to display all the employee names whose initial character of a name is 'A'. [15 M]

```
import java.io.*;
import java.sql.*;
class Empdisplay
{
 static Connection cn;
 static Statement st;
 static ResultSet rs;
 static BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
 public static void main(String args[])

 {
     int e,k,ch,sal;
        String en;
     try
        {

        Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
           cn=DriverManager.getConnection("jdbc:odbc:Emp","","");
        st=cn.createStatement();

                                System.out.println("1. Display ");

                                System.out.println("Enter Your Choice");
                                ch=Integer.parseInt(br.readLine());
                                rs=st.executeQuery ("select *  from emp where Ename like 'S%'");
                                while(rs.next())
                                {
                                System.out.println(rs.getInt("eno") + "\t" +

           rs.getString("ename")+"\t"+rs.getInt("sal"));
                                }
        }
                catch(Exception et)
                 {
                        System.out.println(et);
                 }
        }

}
```

B. Write a java program in multithreading using applet for Digital watch.

```
import java.awt.*;
import java.awt.event.*;
import javax.swing.*;
import java.util.*;
```

```
public class StopWatchApplet extends JApplet{
	private JTextField txtTime;
	private JButton btnStart,btnStop;

	private MyThread t;

	public void init(){
		txtTime = new JTextField(10);
		btnStart = new JButton("Start");
		btnStop = new JButton("Stop");

		btnStart.setMnemonic('S');
		btnStop.setMnemonic('o');

		btnStart.setToolTipText("Resume watch");
		btnStop.setToolTipText("Suspend watch");

		setLayout(new FlowLayout());
		add(txtTime);
		add(btnStart);
		add(btnStop);

		t = new MyThread();
		t.start();

		ButtonHandler bh = new ButtonHandler();
		btnStart.addActionListener(bh);
		btnStop.addActionListener(bh);
	}

	class ButtonHandler implements ActionListener{
		public void actionPerformed(ActionEvent ae){
			if(ae.getSource()==btnStart)
				t.resume();
			if(ae.getSource()==btnStop)
				t.suspend();
		}
	}

	class MyThread extends Thread{
		public void run(){
			while(true){
				Date d = new Date();
				txtTime.setText(
```

```
                                    d.getHours()+":"+
                                    d.getMinutes()+":"+
                                    d.getSeconds());
                                    try{
                                            Thread.sleep(1000);
                                    }catch(Exception e){}
                            }
                    }
            }
}

/*
<applet code=StopWatchApplet width=400 height=200>
</applet>
*/
```

or

```
import java.applet.*;
import java.awt.*;
import java.util.*;
import java.text.*;

public class DigitalClock extends Applet implements Runnable {
  Thread t = null;
  int hours=0, minutes=0, seconds=0;
  String timeString = "";

  public void init() {
    setBackground( Color.green);
  }
   public void start() {
     t = new Thread( this );
     t.start();
  }

  public void run() {
    try {
      while (true) {
        Calendar cal = Calendar.getInstance();
        hours = cal.get( Calendar.HOUR_OF_DAY );
```

```
            if ( hours > 12 ) hours -= 12;
            minutes = cal.get( Calendar.MINUTE );
            seconds = cal.get( Calendar.SECOND );
            SimpleDateFormat formatter = new SimpleDateFormat("hh:mm:ss");
            Date date = cal.getTime();
            timeString = formatter.format( date );
            repaint();
            t.sleep( 1000 );  // interval given in milliseconds
          }
        }
      catch (Exception e) { }
      }
      public void paint( Graphics g ) {
      g.setColor( Color.blue );
      g.drawString( timeString, 50, 50 );
      }
}
<applet code="DigitalClock.class" width="300" height="300">
</applet>
```

Q.2 Dot Net Framework:

A) List of employees is available in listbox. Write ASP.Net application to add selected or all records from listbox to Textbox (assume multi-line property of textbox is true). [15 M]

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="ListBoxDemo.aspx.cs"
Inherits="ListBoxDemo" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title>Untitled Page</title>
</head>
<body>
   <form id="form1" runat="server">
   <div>
      Employee Names: <br />
      <asp:ListBox ID="ListBox1" runat="server" Height="149px" SelectionMode="Multiple"
Width="113px">
      <asp:ListItem>Vinz</asp:ListItem>
      <asp:ListItem>Jhen</asp:ListItem>
      <asp:ListItem>Chris</asp:ListItem>
      <asp:ListItem>Shynne</asp:ListItem>
      <asp:ListItem>Chu</asp:ListItem>
      <asp:ListItem>Mark</asp:ListItem>
      <asp:ListItem>Lilian</asp:ListItem>
      <asp:ListItem>Rod</asp:ListItem>
      <asp:ListItem>Glendzy</asp:ListItem>
      </asp:ListBox>
```

```
    </div>
    <br />
    <asp:Button ID="Button1" runat="server" Text="Save" onclick="Button1_Click" />
    </form>
</body>
</html>

using System;
using System.Collections;
using System.Configuration;
using System.Data;
using System.Linq;
using System.Web;
using System.Web.Security;
using System.Web.UI;
using System.Web.UI.HtmlControls;
using System.Web.UI.WebControls;
using System.Web.UI.WebControls.WebParts;
using System.Xml.Linq;
using System.Data.SqlClient;
using System.Collections.Specialized;
using System.Text;

public partial class ListBoxDemo : System.Web.UI.Page
{
    private string GetConnectionString()
    {
        //Where DBConnection is the connetion string that was set up in the web config file
        return
System.Configuration.ConfigurationManager.ConnectionStrings["DBConnection"].ConnectionString
;
    }

    private void InsertRecords(StringCollection sc)
    {
        SqlConnection conn = new SqlConnection(GetConnectionString());
        StringBuilder sb = new StringBuilder(string.Empty);
        foreach (string item in sc)
        {
            const string sqlStatement = "INSERT INTO Table1 (Employees) VALUES";
            sb.AppendFormat("{0}('{1}'); ", sqlStatement, item);
        }

        try
        {
            conn.Open();
            SqlCommand cmd = new SqlCommand(sb.ToString(), conn);
            cmd.CommandType = CommandType.Text;
            cmd.ExecuteNonQuery();
            Page.ClientScript.RegisterClientScriptBlock(typeof(Page), "Script", "alert('Records
Successfuly Saved!');", true);
```

```
        }

        catch (System.Data.SqlClient.SqlException ex)
        {
            string msg = "Insert Error:";
            msg += ex.Message;
            throw new Exception(msg);
        }
        finally
        {
            conn.Close();
        }
    }

    protected void Page_Load(object sender, EventArgs e)
    {

    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        StringCollection sc = new StringCollection();

        foreach (ListItem item in ListBox1.Items)
        {
            if (item.Selected)
            {
                sc.Add(item.Text);
            }
        }
        InsertRecords(sc);
    }
}
```

B) Write a c#.Net program for multiplication of matrices. [25 M]

```
using System;
namespace MatrixMultiplicationDemo {
  class Example {
    static void Main(string[] args) {
      int m = 2, n = 3, p = 3, q = 3, i, j;
      int[,] a = {{1, 4, 2}, {2, 5, 1}};
      int[,] b = {{3, 4, 2}, {3, 5, 7}, {1, 2, 1}};
      Console.WriteLine("Matrix a:");
      for (i = 0; i < m; i++) {
        for (j = 0; j < n; j++) {
          Console.Write(a[i, j] + " ");
        }
        Console.WriteLine();
      }
      Console.WriteLine("Matrix b:");
      for (i = 0; i < p; i++) {
```

```
            for (j = 0; j < q; j++) {
              Console.Write(b[i, j] + " ");
            }
            Console.WriteLine();
          }
          if(n! = p) {
            Console.WriteLine("Matrix multiplication not possible");
          } else {
            int[,] c = new int[m, q];
            for (i = 0; i < m; i++) {
              for (j = 0; j < q; j++) {
                c[i, j] = 0;
                for (int k = 0; k < n; k++) {
                  c[i, j] += a[i, k] * b[k, j];
                }
              }
            }
            Console.WriteLine("The product of the two matrices is :");
            for (i = 0; i < m; i++) {
              for (j = 0; j < n; j++) {
                Console.Write(c[i, j] + "\t");
              }
              Console.WriteLine();
            }
          }
        }
      }
```

SLIP9

1. Java Program to create a Emp (ENo, EName, Sal) table and insert record into it. (Use PreparedStatement Interface) [15 M]
2. Write a JSP program to create an online shopping mall. User must be allowed to do purchase from two pages. Each page should have a page total. The third page should display a bill, which consists of a page total of whatever the purchase has been done and print the total. (Use Session) [25 M]

Q.2 Dot Net Framework:

1. Write a Menu driven program in C#.Net to perform following functionality: Addition, Multiplication, Subtraction, Division. [15 M]

```
using System;
namespace Sample {
  class Demo {
    static void Main(string[] args) {
      int num1 = 50;
      int num2 = 25;
      int result;
```

```
        result = num1 + num2;
        Console.WriteLine("Value is {0}", result);
        result = num1 - num2;
        Console.WriteLine("Value is {0}", result);
        result = num1 * num2;
        Console.WriteLine("Value is {0}", result);
        result = num1 / num2;
        Console.WriteLine("Value is {0}", result);
        result = num1 % num2;
        Console.WriteLine("Value is {0}", result);
        result = num1++;
        Console.WriteLine("Value is {0}", result);
        result = num1--;
        Console.WriteLine("Value is {0}", result);
        Console.ReadLine();
    }
  }
}
```

2. Create an application in ASP.Net that allows the user to enter a number in the textbox named "getnum". Check whether the number in the textbox "getnum" is palindrome or not. Print the message accordingly in the label control named lbldisplay when the user clicks on the button "check". [25 M]

SLIP10

Q.1. Advanced Java:

A. Write a java Program in Hibernate to display “Hello world” message. [15 M]

B. Write a SERVLET program to display the details of Product (ProdCode, PName, Price) on the browser in tabular format. (Use database)

[25 M]

Servlet.html

```
<html>
  <body>
      <form method-get action=http://localhost:4040/foldername/servlet/filename>
        Pno<input type="text" name="pno"><br>
        <INPUT type="submit" value="Open">
       </form>
  </body>
</html>
```

Servlet.java

```
import java.io.*;
```

```
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;
public class Readproduct extends HttpServlet
{
        public void doGet(HttpServletRequest req, HttpServletResponse res)
                throw ServletException, IOException
                {
                        int pno=Integer.parseInt(req.getparameter ("pno"));
                        String pname=req.getParameter("pname");
                        int Price=Integer.parseInt(req.getparameter ("price"));.
                        try
                        {

                          Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
                    Connection cn=DriverManager.getConnection("jdbc:odbc:dsn2","","");
                    Statement s=cn.createstatement();

                    PrintWriter pw=res.getWriter();
                    Resultset rs=s.executeQury("select * from Product where Pno="+Pno);
                    while(rs.next())
                    {
                        pw.println("Pno:-"+rs.getInt("pno"));
                        pw.println("Pname:-"+rs.getString("pname"));
                        pw.println("Price:-"+rs.getInt("price"));
                    }
                        }
                        catch(Exception e)
                        {
                                pw.println(e);
                        }
                }
}

<?xml version="1.0"encoding="ISO-8859-1"?>
<web-app>
     <servlet>
    <servlet-name>Readproduct</servlet-name>
    <servlet-class>Readproduct</servlet-class>
      </servlet>
    <servlet-mapping>
    <servlet-name>Readproduct</servlet-name>
            <url-pattern>/servlet/Readproduct</url-pattern>
    </servlet-mapping>
</web-app>
```

Q.2 Dot Net Framework:

1. Write a program that demonstrates the use of primitive data types in C#. The program should also support the type conversion of :
   - Integer to String
   - String to Integer [15 M]

```
using System;
using System.Reflection;

class GFG{

static void Main()
{

        if (typeof(int).IsPrimitive == true)
        {

        Console.WriteLine("Primitive data type");
        }
        else
        {
                                                        Console.WriteLine("Not
        a primitive data type");
        }

        if (typeof(float).IsPrimitive == true)
        {

        Console.WriteLine("Primitive data type");
        }
        else
        {
                                                        Console.WriteLine("Not
        a primitive data type");
        }

        if (typeof(double).IsPrimitive == true)
        {

        Console.WriteLine("Primitive data type");
        }
        else
        {
                                                        Console.WriteLine("Not
        a primitive data type");
        }
}
        }
```

2. Write ASP.Net program to connect to the master database in SQL Server in the Page_Load event. When the connection is established, the message “Connection has been established” should be displayed in a label in the form . [25 M]

SLIP11

Q.1. Advanced Java:

A) Write a java program to display IPAddress and name of client machine.[15 M]

```
    import java.net.InetAddress;
import java.net.UnknownHostException;
public class getiphost {
public static void main(String[] args) {

try {
InetAddress inetAddr = InetAddress.getLocalHost();
byte[] addr = inetAddr.getAddress();
// Convert to dot representation
        String ipAddr = "";
for (int i = 0; i < addr.length; i++) {
if (i > 0) {
ipAddr += ".";
}
ipAddr += addr[i] & 0xFF;
}
String hostname = inetAddr.getHostName();
        System.out.println("IP Address: " + ipAddr);

System.out.println("Hostname: " + hostname);
}
catch (UnknownHostException e) {
System.out.println("Host not found: " + e.getMessage());
}
}
```

}

B) Write a Java program to display sales details of Product (PID, PName, Qty, Rate, Amount) between two selected dates. (Assume Sales table is already created). [25 M]

```
import java.awt.*;
import java.awt.event.*;
import java.sql.*;
import javax.swing.*;
public class Product extends JFrame
{
        Connection cn;
        Statement st;
        ResultSet rs;
        String head[]={"Pid","Pname","Amount"};
        String as[][]= new String[10][10];
        public Product()
        {
                try
                {
                        Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
                          cn=DriverManager.getConnection("jdbc:odbc:Product","","");
                        st=cn.createStatement();
                        rs=st.executeQuery("select * from prod");
                        int i=0;
                        while(rs.next())
```

```
                {
                        as[i][0]=rs.getString("Pid");
                        as[i][1]=rs.getString("Pname");
                        as[i][2]=rs.getString("Amount");
                        i++;
                }
                JTable jt=new JTable(as,head);
                JScrollPane pane=new JScrollPane(jt);
                getContentPane().add(pane);

        }
        catch(Exception e)
        {
                System.out.println(e);
        }

        setSize(400,400);
        setVisible(true);
    }
    public static void main(String args[])
    {
        new Doctor().show();
    }
}
```

OR

sales.sql

```
create table Book_Sales(SalesID integer, SalesDate date, Amount float);

insert into Book_Sales values(1,'02-Mar-15',4500);
insert into Book_Sales values(2,'09-Mar-15',6500);
insert into Book_Sales values(3,'01-Mar-15',7500);
insert into Book_Sales values(4,'02-Jan-15',3500);
insert into Book_Sales values(5,'02-Jan-15',4500);
insert into Book_Sales values(6,'02-Jan-15',7500);
insert into Book_Sales values(7,'02-Jan-15',8500);
insert into Book_Sales values(8,'12-Feb-15',9500);
insert into Book_Sales values(9,'22-Feb-15',14500);
insert into Book_Sales values(10,'12-Feb-15',74500);
```

salesreport.java

```
import java.awt.*;
import java.awt.event.*;
import javax.swing.*;
import javax.swing.table.*;
import java.sql.*;
import java.util.*;
import java.text.*;
```

```
class SalesReport extends JFrame{
        private JLabel lblStart,lblEnd;
        private JComboBox cmbStart,cmbEnd;
        private JPanel panNorth;
        private JButton btnShow;
        private JTable tabReport;
        private DefaultTableModel dtm;

        public SalesReport(){
lblStart = new JLabel("Start Date:");
        lblEnd = new JLabel("End Date:");
cmbStart = new JComboBox();
        cmbEnd = new JComboBox();
        Calendar calendar = new GregorianCalendar();
        java.util.Date d = new java.util.Date();
        System.out.println(d.getDate());
        calendar.set(Calendar.YEAR, d.getYear()+1900);
        calendar.set(Calendar.MONTH, d.getMonth());
        calendar.set(Calendar.DAY_OF_MONTH, d.getDate());
        for(int i=1000;i>=1;i--){
        String str = calendar.get(Calendar.YEAR)+"-"+
        (calendar.get(Calendar.MONTH)+1)+"-"+
        calendar.get(Calendar.DAY_OF_MONTH);
        cmbStart.addItem(str);
        cmbEnd.addItem(str);
        calendar.add(Calendar.DAY_OF_MONTH, -1);
        }
        btnShow = new JButton("Show");
        panNorth = new JPanel(new GridLayout(1,4));
        panNorth.add(lblStart);
        panNorth.add(cmbStart);
        panNorth.add(lblEnd);
        panNorth.add(cmbEnd);
        panNorth.add(btnShow);
        dtm = new DefaultTableModel();
        dtm.addColumn("PID");
        dtm.addColumn("PName");
        dtm.addColumn("Amount");
        dtm.addColumn("Date");
        tabReport = new JTable(dtm);
        setTitle("Sales Report");
        setSize(400,400);
        add(panNorth,"North");
        add(new JScrollPane(tabReport),"Center");
        setVisible(true);
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        btnShow.addActionListener(new ActionListener(){
        public void actionPerformed(ActionEvent ae){
        try{
        for(int i=0;i<dtm.getRowCount();i++)
        dtm.removeRow(0);
```

```
Class.forName("oracle.jdbc.OracleDriver");
Connection con=DriverManager.getConnection(
"jdbc:oracle:thin:tybca/bca@localhost:1521:XE");
SimpleDateFormat sdf = new SimpleDateFormat("yyyy-mm-dd");
String sdate = cmbStart.getSelectedItem().toString();
String edate = cmbEnd.getSelectedItem().toString();
java.util.Date d = sdf.parse(sdate);
java.sql.Date newsdate = new java.sql.Date(d.getTime());
d = sdf.parse(edate);
java.sql.Date newedate = new java.sql.Date(d.getTime());
PreparedStatement ps = con.prepareStatement("select * from prod_sales where sale_date between
? and ?");
ps.setDate(1,newsdate);
ps.setDate(2,newedate);
ResultSet rs = ps.executeQuery();
while(rs.next()){
Vector v = new Vector();
v.add(rs.getString(1));
v.add(rs.getString(2));
v.add(rs.getString(3));
v.add(rs.getString(4));
dtm.addRow(v);
}
}
catch(Exception e){
JOptionPane.showMessageDialog(null,e);
}
}
});
}
public static void main(String args[]){
new SalesReport();
}
}
```

Q.2 Dot Net Framework:

A) Write a ASP.Net program that gets user input such as the user name, mode of payment, appropriate credit card. After the user enters the appropriate values the Validation button validates the values entered. [15 M]

B) Write C# program to make a class named Fruit with a data member to calculate the number of fruits in a basket. Create two other class named Apples and Mangoes to calculate the number of apples and mangoes in the basket. Display total number of fruits in the basket. [25 M]

```
namespace FruitBasket
{    using System;
public abstract class Fruit
{
public static int NumberOfFruits { get; protected set; }
}
public class Apple : Fruit
{
```

```
public Apple()
{ NumberOfApples++;
NumberOfFruits++;
}
public static int NumberOfApples { get; protected set; }
}
public class Mango : Fruit
{
public Mango()
{NumberOfMangoes++;
NumberOfFruits++;
}
public static int NumberOfMangoes { get; protected set; }
}
public class Program
{

public static void Main(string[] args)
{
var apple = new Apple();
var apple2 = new Apple();
var apple3 = new Apple();
var mango = new Mango();
var mango2 = new Mango();
var mango3 = new Mango();
var mango4 = new Mango();
var mango5 = new Mango();
Console.WriteLine($"Total number of apples in the basket - {Apple.NumberOfApples}");
Console.WriteLine($"Total number of mangoes in the basket - {Mango.NumberOfMangoes}");

Console.WriteLine($"Total number of fruits in the basket - {Fruit.NumberOfFruits}");
}
}
}
```

SLIP12

Q.1. Advanced Java:

A) Write a java program to count the number of records in a table. [15 M]

```
import java.io.*;
import java.sql.*;
public class countRecord
{
        static Connection cn ;
```

```
        static Statement st;
        static ResultSet rs;
public static void main(string args[])
{
        try
        {
                        Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
                        cn=DriverManager.getConnection("jdbc:odbc:Emp","","");
                        st=cn.createStatement();
                        rs=st.executeQuery("select * from employee");
                        System.out.println("Eno"+"Ename\t"+sal);
                        int count=0;
                                while(rs.next());
                                {

System.out.println("rs.getInt("Eno")+"\t"+rs.getString("Ename")+"\t"+rs.getInt(sal"));
                                        count ++;
                                }
                                System.out.println("Total records are"+count);

                                }catch(Exception e)
                                {
                                        System.out.println(e);
                                }

        }
}
```

OR

```
  import java.sql.*;

 class RecordCount{
        public static void main(String args[]){
                                                                        try{

        Class.forName("oracle.jdbc.OracleDriver");

                                                                Connection con
        = DriverManager.getConnection(

        "jdbc:oracle:thin:tybca/bca@localhost:1521:XE");

                                                                Statement s =
        con.createStatement();

                                                                ResultSet rs =
        s.executeQuery("select * from employees");

                                                                int count=0;
                                                                while(rs.next()){
```

```
                count++;
            }

        System.out.println("No.of records:"+count);
                rs.close();
                con.close();
            }
            catch(Exception e){

        System.out.println(e);
            }
        }
        }
```

B) Write a program in java which will show lifecycle (creation, sleep, and dead) of a thread. Program should print randomly the name of thread and value of sleep time. The name of the thread should be hard coded through constructor. The sleep time of a thread will be a random integer in the range 0 to 4999. [25 M]

```
class MyThread extends Thread{

        public MyThread(String s){
            super(s);
        }

        public void run(){

        System.out.println(getName()+" thread created.");
            while(true){

        System.out.println(this);
                int s =
        (int)(Math.random()*5000);

        System.out.println(getName()+" is sleeping for "+s+"msec");
                try{

        Thread.sleep(s);

        }catch(Exception e){}
            }

        }
}

class ThreadLifeCycle{
        public static void main(String args[]){
            MyThread t1 = new
        MyThread("Ram"),
                t2 = new
        MyThread("Seeta");
            t1.start();
```

```
t2.start();

try{
        t1.join();
        t2.join();
}catch(Exception e){}


        System.out.println(t1.getName()+" thread dead.");

        System.out.println(t2.getName()+" thread dead.");
        }
}
```

or

```
 import java.awt.*;
import java.awt.event.*;

class CounterThread extends Frame implements Runnable{
        private TextField txtCount;
        private Button btnStart;
        private int count=1;
        private Thread t;

        public CounterThread(){
                txtCount = new

        TextField(10);

                btnStart = new

        Button("Start");


                setTitle("Counter");
                setSize(300,400);
                setLayout(new

        FlowLayout());

                add(txtCount);
                add(btnStart);
                setVisible(true);

                t = new Thread(this);


        addWindowListener(new WindowAdapter(){
                public void

        windowClosing(WindowEvent we){

        System.exit(0);

                }
        });
```

```
        btnStart.addActionListener(new ActionListener(){
                                                                    public void
        actionPerformed(ActionEvent ae){
                                                                        t.start();
                                                                    }
                                                                });
        }
        public void run(){
                                                                while(true){
        txtCount.setText(Integer.toString(count));
                                                                    count++;
                                                                    if(count>100)
        count=1;
                                                                    try{
        Thread.sleep(1000);
        }catch(Exception e){}
                                                                }
        }
        public static void main(String args[]){
                                                                new CounterThread();
        }
}
```

Q.2 Dot Net Framework:

A) Write ASP.Net program that displays a button in green color and it should change into yellow when the mouse moves over it. [15 M]

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs" Inherits="_Default"
    %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
<title>Change Button Color On MouseOver In Asp.Net</title>
<style type="text/css">
body
 {
 width: 980px;
 margin: 0px auto;
 text-align: center;
 padding-top: 50px;
 font-size: 20px;
 }
```

```
  .ccolor:hover
   {
   color: white;
   font-size:14px;
   padding:5px;
   background-color:green;
   border:none;
   }
  </style>
  </head>
  <body>
  <form id="form1" runat="server">
  <div>
  <h2>Change Button Color On MouseOver In Asp.Net</h2>
  <br /><br />
  <asp:Button ID="chngcolor" runat="server" Text="Submit" CssClass="ccolor" />
  <br /><br />
  <br /><br />
  </div>
  </form>
  </body>
        </html>
```

B) Write a VB.NET program to create player table (PID, PName, Game, no_of_matches). Insert records and update number of matches of 'Rohit Sharma' and display result in data grid view. [25 M]

SLIP 13

Q.1. Advanced Java:

A) Write a java program to display name of currently executing Thread in multithreading. [15 M]

B) Write a JSP program to display the details of College (CollegeID, Coll_Name, Address) in tabular form on browser. [25 M]

```
    import java.io.*;
import java.sql.*;
public class CreateCollegeTable
{
        static Connection cn;
        static Statement st;

        public static void main(String args[])
        {
                try
                {
                        int Cid;
                        String Cname,Caddress,year;
                        BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
                        Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
                        cn=DriverManager.getConnection("jdbc:odbc:dsn","","");
                        st=cn.createStatement();
```

```
                String str="create table Teacher(Cid number,Cname varchar(20),year varcar(10)
,Caddress varchar(20))";
                st.executeUpdate(str);
                System.out.println("Table Created");
                System.out.println("Enter Cid");
                Cid=Integer.parseInt(br.readLine());
                System.out.println("Enter Cname");
                Cname=br.readLine();
                System.out.println("Enter year");
                Pno=Integer.parseInt(br.readLine());
                System.out.println("Enter Caddress");
                Caddress=br.readLine();
                        st.executeUpdate("insert into Customer
values("+Cid+",'"+Cname+"',"+year+",'"+Caddress+"')");
                System.out.println("Record added successfully");
                cn.close();
            }catch(Exception e)
            {
                System.out.println(e);
            }
        }
}
```

Q.2 Dot Net Framework:

A) Write a VB.net program for blinking an image. [15 M]

```
Public Class slip2
   Private Sub Timer1_Tick(sender As Object, e As EventArgs) Handles Timer1.Tick
      PictureBox1.Visible = Not PictureBox1.Visible
   End Sub
End Class
```

or

```
Public Class Form1
   Private Sub Timer1_Tick(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles
Timer1.Tick
      If PictureBox1.Visible = True Then
         PictureBox1.Visible = False
      Else
         PictureBox1.Visible = True
      End If
   End Sub
End Class
```

B) Write a C# Program to accept and display ‘n’ student’s details such as Roll. No, Name, marks in three subjects, using class. Display percentage of each student. [25 M]

```
using System;
using System.Collections.Generic;
```

```
using System.Text;

namespace ConsoleApplication4
{
    class Class2
    {
        static void Main(string[] args)
        {

            int r, marks1, marks2, marks3, total;
            float percentage;
            string n;
            Console.WriteLine("Enter Student Roll Number :");
            r = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Enter Student Name :");
            n = Console.ReadLine();
            Console.WriteLine("Enter Subject-1 Marks : ");
            marks1 = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Enter Subject-2 Marks : ");
            marks2 = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Enter Subject-3 Marks :");
            marks3 = Convert.ToInt32(Console.ReadLine());
            total = marks1 + marks2 + marks3;
            percentage = total / 3.0f;
            Console.WriteLine("Final result of {0} is:", n);
            Console.WriteLine("Total Marks : " + total);
            Console.WriteLine("Percentage : " + percentage);
            if (percentage <= 35)
            {
                Console.WriteLine("Grade is F");
            }
            else if (percentage >= 34 && percentage <= 39)
            {
                Console.WriteLine("Grade is D");
            }
            else if (percentage >= 40 && percentage <= 59)
            {
                Console.WriteLine("Grade is C");
            }
            else if (percentage >= 60 && percentage <= 69)
            {
                Console.WriteLine("Grade is B");
            }
            else if (percentage >= 70 && percentage <= 79)
            {
                Console.WriteLine("Grade is B+");
            }
            else if (percentage >= 80 && percentage <= 90)
            {
                Console.WriteLine("Grade is A");
            }
            else if (percentage >= 91)
            {
                Console.WriteLine("Grade is A+");
            } Console.ReadLine();
```

```
        }
    }
}
```

SLIP 14

Q.1. Advanced Java:

A) Write a JSP program to accept Name and Age of Voter and check whether he is eligible for voting or not. [15 M]

age.html

```
<form method='post' action='age_check.jsp'>
Enter Vote Name:<input type='text' name='name'><br>
Enter Voter Age:<input type='text' name='age'><br><br>
<input type='submit'><input type='reset'>
```

</form>

agecheck.jsp

```
<%
    String name = request.getParameter("name");
    int age = Integer.parseInt(request.getParameter("age"));

    if(age>=18)
                                                    out.print(name+" you
    are eligible for voting");
    else
                                                    out.print(name+" you
    are not eligible for voting");
    %>
```

B) Write a Java program to display given extension files from a specific directory on server machine. [25 M]

Q.2 Dot Net Framework:

A) Write a program in C#.Net to find the sum of all elements of the array. [15 M]

```
using System;
using System.Collections.Generic;
using System.Text;

namespace ConsoleApplication4
{
    class Class6
    {
        public static void Main()
{
    int[] a= new int[100];
    int i, n, sum=0;


       Console.Write("\n\nFind sum of all elements of array:\n");
       Console.Write("-------------------------------------\n");

       Console.Write("Input the number of elements to be stored in the array :");
          n = Convert.ToInt32(Console.ReadLine());

       Console.Write("Input {0} elements in the array :\n",n);
```

```
            for(i=0;i<n;i++)
             {
                  Console.Write("element - {0} : ",i);
                     a[i] = Convert.ToInt32(Console.ReadLine());
                }

           for(i=0; i<n; i++)
           {
               sum += a[i];
           }

           Console.Write("Sum of all elements stored in the array is : {0}\n\n", sum);
           Console.ReadLine();

         }
      }

           }
```

C) Write a C#.Net Program to define a class Person having members –name, address. Create a subclass called employee with member staffed, salary. Create 'n' objects of the Employee class and display all the details of the Employee. [25 M]

SLIP15

Q.1. Advanced Java:

A) Write a java program to display each alphabet after 2 seconds between 'a' to 'z'. [15 M]

```
class AlphabetThread extends Thread{
        private char c;

        public AlphabetThread(){
                                                                c='A';
        }

        public void run(){
                                                                while(true){

        System.out.println(c);
                                                                        c++;
                                                                        if(c=='Z'+1)
        c='A';
                                                                        try{

        Thread.sleep(3000);

        }catch(Exception e){}
                                                                }
        }
}

class AlphabetThreadDemo{
        public static void main(String args[]){
                                                                new
        AlphabetThread().start();
```

```
        }
    }
```

B) Write a Java program to accept the details of Student (RNo, SName, Per, Gender, Class) and store into the database. (Use appropriate Swing Components and PreparedStatement Interface). [25 M]

```
import java.io.*;
import java.sql.*;
public class CreateStudentTable
{       static Connection cn;
        static Statement st;
        static PreparedStatement ps;
        static ResultSet rs;
        public static void main(String args[])
        {       try{
                        int rno,per;
                        String name;
                        BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
                        Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
                        cn=DriverManager.getConnection("jdbc:odbc:dsn","","");
                        String str="create table Stud(rno number,name varchar(20),per number)";
                        ps=cn.prepareStatement(str);
                        ps.executeUpdate();
                        System.out.println("\nStudent Table Created");
                        System.out.println("\n Howmany Records you want to insert?");
                        int n=Integer.parseInt(br.readLine());
                        System.out.println("\nEnter "+n+" Records \n");
                        for(int i=0;i<n;i++)
                        {
                                System.out.println("\nEnter ");
                                rno=Integer.parseInt(br.readLine());
                                System.out.println("Enter Student name");
                                name=br.readLine();
                                System.out.println("Enter per");
                                per=Integer.parseInt(br.readLine());
                                ps=cn.prepareStatement("insert into Stud values(?,?,?)");
                                ps.setInt(1,rno);
                                ps.setString(2,name);
                                ps.setInt(3,per);
                                ps.executeUpdate();
                        }
                        System.out.println("\nAll Records are: \n");
                        st=cn.createStatement();
                        rs=st.executeQuery("select * from Stud");
                        System.out.println("RollNo \t Name \t Perc.");
                        while(rs.next())
                        {
```

```
System.out.println(rs.getInt("rno")+"\t"+rs.getString("name")+"\t"+rs.getInt("per"));                    }
                        cn.close();
                }catch(Exception e){
                                        System.out.println(e);
                                    }
        }
}
```

Q.2 Dot Net Framework:

A) Write ASP.Net application to create a user control that contains a list of colors. Add a button to the Web Form which when clicked changes the color of the form to the color selected from the list. [15 M]

B) Write a C#.Net Program to accept and display 'n' customer's details such as customer_no, Name, address ,itemno, quantity price . Display total price of all item. [25 M]

SLIP 16

Q.1. Advanced Java:

A) Write a JSP script to accept username and password from user, if they are same then display "Login Successfully" message in Login.html file, otherwise display "Login Failed" Message in Error.html file. [15 M]

UserPass.html

```
<html>
<body>
<form method=post action="http://localhost:4141/Program/servlet/UserPass">
User Name :<input type=text name=user><br><br>
Password :<input type=text name=pass><br><br>
<input type=submit value="Login">
</form>
</body>
</html>
```

UserPass.java

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;
public class UserPass extends HttpServlet
{
   public void doGet(HttpServletRequest request, HttpServletResponse response)
      throws IOException, ServletException
   {
        PrintWriter out = response.getWriter();
        try{
                String us=request.getParameter("user");
                String pa=request.getParameter("pass");
```

```
                Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
                Connection cn=DriverManager.getConnection("jdbc:odbc:dsn2","","");
                Statement st=cn.createStatement();
                ResultSet rs=st.executeQuery("select * from UserPass");
                while(rs.next())
                {
                if(us.equals(rs.getString("user"))&&pa.equals(rs.getString("pass")))
                out.println("Valid user");
                else
                out.println("Invalid user");
                }
            }catch(Exception e)
             {
                out.println(e);
             }
   }
   public void doPost(HttpServletRequest request, HttpServletResponse response)
   throws IOException, ServletException
   {
      doGet(request, response);
   }
}
```

Web.xml file(servlet entry)

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<web-app>
<servlet>
      <servlet-name>UserPass</servlet-name>
      <servlet-class>UserPass</servlet-class>
   </servlet>
   <servlet-mapping>
      <servlet-name>UserPass</servlet-name>
      <url-pattern>/servlet/UserPass</url-pattern>
   </servlet-mapping>
</web-app>
```

or

```
 <%
          String username = request.getParameter("username");
          String password = request.getParameter("password");
          out.println("Checking login<br>");
          if (username == null || password == null) {

             out.print("Invalid paramters ");
          }

          // Here you put the check on the username and password
          if (username.toLowerCase().trim().equals("admin") &&
          password.toLowerCase().trim().equals("admin")) {
             out.println("Welcome " + username);
             session.setAttribute("username", username);
```

```
        }
        else
           {
            out.println("Invalid username and password");
        }


        %>

        or
<HTML>
   <HEAD>
      <TITLE>Login using jsp</TITLE>
   </HEAD>

   <BODY>
      <H1>LOGIN FORM</H1>
      <%
      String myname =  (String)session.getAttribute("username");

      if(myname!=null)
         {
          out.println("Welcome  "+myname);
         }
      else
         {
         %>
         <form action="checkLogin.jsp">
            <table>
               <tr>
                  <td> Username  : </td><td> <input name="username" size=15 type="text" /> </td>
               </tr>
               <tr>
                  <td> Password  : </td><td> <input name="password" size=15 type="text" /> </td>
               </tr>
            </table>
            <input type="submit" value="login" />
         </form>
         <%
         }


        %>

   </BODY>
        </HTML>
```

B) Write a Java program to accept the details of students (rno, sname, per) at least 5 Records, store it into database and display the details of student having highest percentage. (Use PreparedStatement Interface) [25 M]

Q.2 Dot Net Framework:

A) Write ASP.Net program to create a user control that receives the user name and password from the user and validates them. If the user name is "SPPU" and the password is "PUNE", then the user is authorized, otherwise not. [15 M]

B) Define a class supplier with fields – sid, name, address, pincode. Write a C#.Net Program to accept the details of 'n' suppliers and display it. [25 M]

SLIP17

Q.1. Advanced Java:

A) Write a java program to accept a String from user and display each vowel from a String after 3 seconds. [15 M]

```
import java.io.*;
import java.util.*;

 class MyThread extends Thread
{
   String str;
   int i;
   char c;

   MyThread(String s)
   {
            str=s;

   }
    public void run()
    {
     for(i=0;i<str.length();i++)
      {
        c=str.charAt(i);
       if(c=='a' || c=='A' ||
            c=='e' || c=='E'
             c=='i' || c=='I' ||
            c=='o' || c=='O' ||
         c=='u' || c=='U' )
           {
              System.out.print(" " + "\t"+c);
           }
      }
   }
}

class Slip2A
{
  public static void main(String args[])
  {
    try
    {
```

```
        BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
        System.out.println("Enter The String");
        String str=br.readLine();
        MyThread t=new MyThread(str);
        t.start();
    }
    catch(Exception obj)
    {
        System.out.println(obj);
    }

  }
        }
```

B) Write a Java program to check whether given file is present on server or not, if it is there then display its contents on client's terminal otherwise display the message "File Not Found". [25 M]

```
  import java.io.*;
import java.net.*;

class Server{
        public static void main(String args[])
        throws Exception{
                                                        ServerSocket ss = new
        ServerSocket(7080);

                                                        while(true)
                                                        {
                                                                Socket s =
        ss.accept();


        DataOutputStream toClient = new DataOutputStream(


        s.getOutputStream());

                                                                DataInputStream
        fromClient = new DataInputStream(


        s.getInputStream());

                                                                String fileName
        = fromClient.readLine();

                                                                File f = new
        File(fileName);

                                                                if(f.exists()){
                                                                        String
```

```
str=null;

DataInputStream dis = new DataInputStream(

                                                                    new
FileInputStream(f));

while((str=dis.readLine())!=null)
                                                                        {

toClient.writeBytes(str+"\n");
                                                                        }
                                                                    }
                                                                    else{

toClient.writeBytes("File "+fileName+" not found.\n");
                                                                    }

toClient.writeBytes("END\n");
                                                                }
}
}
```

Q.2 Dot Net Framework:

A) Write a C#.Net application to display the vowels from a given String. [15 M]

```
using System;
using System.Collections.Generic;
using System.Text;

namespace ConsoleApplication4
{
    class Class4
    {
        public static void Main()
        {
            string myStr;
            int i, len, vowel_count, cons_count;
            Console.WriteLine("enter string");
           myStr= Console.ReadLine();

            //myStr = "Avengers";
            vowel_count = 0;
            cons_count = 0;
            len = myStr.Length;
            for (i = 0; i < len; i++)
            {
                if (myStr[i] == 'a' || myStr[i] == 'e' || myStr[i] == 'i' || myStr[i] == 'o'
|| myStr[i] == 'u' || myStr[i] == 'A' || myStr[i] == 'E' || myStr[i] == 'I' || myStr[i] ==
'O' || myStr[i] == 'U')
                {
                    vowel_count++;
                }
                else
                {
                    cons_count++;
                }
            }
```

```
                Console.Write("Vowels in the string: {0}", vowel_count);
                Console.ReadLine();

            }

        }
    }
```

B) Write a VB.NET program to accept the details of product (PID, PName, expiry_date, price). Store it into the database and display it on data grid view. [25 M]

SLIP 18

Q.1. Advanced Java:

A) Write a java program to calculate factorial of a number. (Use sleep () method). [15 M]

B) Write a java program for simple standalone chatting application. [25 M]

Q.2 Dot Net Framework:

A) Write a VB.NET program to accept a number from user through input box and display its multiplication table into the list box. [15 M]

```
Public Class Form1
   Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles
Button1.Click
      Dim no As Integer
      Dim i As Integer

      no = CInt(InputBox("Enter Number "))
      For i = 1 To 10
         ListBox1.Items.Add(no * i)
      Next
   End Sub
End Class
```

B) Write ASP.Net program containing the following controls: • ListBox • Button • Image • Label The listbox is used to list items available in a store. When the user clicks on an item in the listbox, its image is displayed in the image control. When the user clicks the button, the cost of the selected item is displayed in the control. [25 M]

SLIP-19

Q.1. Advanced Java:

A) Write a JSP program which accept UserName in a TextBox and greets the user according to the time on server machine. [15 M]

greet.html

```
<form method='post' action='greet.jsp'>
```

```
User Name:<input type='text' name='uname'>
<input type='submit'>
        </form>
```

greet.jsp

```
<%@page import="java.util.*"%>
<%
        String uname = request.getParameter("uname");

        Date d = new Date();

        if(d.getHours()<11){
%>
Good morning
<%
        }
        else if(d.getHours()<17){
%>
Good afternoon
<%
        }
        else{
%>
Good evening
<%
        }
%>
        <%=" "+uname%>
```

OR

UserPass.html

```
<html>
<body>
<form method=post action="http://localhost:4141/Program/servlet/UserPass">
User Name :<input type=text name=user><br><br>
Password :<input type=text name=pass><br><br>
<input type=submit value="Login">
</form>
</body>
</html>
```

UserPass.java

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;
public class UserPass extends HttpServlet
{
   public void doGet(HttpServletRequest request, HttpServletResponse response)
      throws IOException, ServletException
   {
```

```
        PrintWriter out = response.getWriter();
        try{
                String us=request.getParameter("user");
                String pa=request.getParameter("pass");
                  Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
                Connection cn=DriverManager.getConnection("jdbc:odbc:dsn2","","");
                Statement st=cn.createStatement();
                ResultSet rs=st.executeQuery("select * from UserPass");
                  while(rs.next())
                {
                if(us.equals(rs.getString("user"))&&pa.equals(rs.getString("pass")))
                out.println("Valid user");
                else
                out.println("Invalid user");
               }
            }catch(Exception e)
            {
               out.println(e);
            }
    }
    public void doPost(HttpServletRequest request, HttpServletResponse response)
    throws IOException, ServletException
    {
       doGet(request, response);
    }
}

Web.xml file(servlet entry)
<?xml version="1.0" encoding="ISO-8859-1"?>
<web-app>
<servlet>
       <servlet-name>UserPass</servlet-name>
       <servlet-class>UserPass</servlet-class>
    </servlet>
    <servlet-mapping>
       <servlet-name>UserPass</servlet-name>
       <url-pattern>/servlet/UserPass</url-pattern>
    </servlet-mapping>
</web-app>
```

B) Write a Java program to display first record from student table (rno, sname, per) onto the TextFields by clicking on button. (Assume Student table is already created). [25 M]

Q.2 Dot Net Framework:

A) Write a VB.NET program to check whether enter string is palindrome or not. [15 M]

```
Public Class Form1
   Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button1.Click
        Dim str1 As String
        str1 = TextBox1.Text
```

```
        If str1 = StrReverse(str1) Then
           MsgBox("String is palindrome")
        Else
           MsgBox("String is not palindrome")
        End If
     End Sub
  End Class
```

B) "How is the book ASP.NET with C# by Wrox publication?" Give the user three choices : i)Good ii)Satisfactory iii)Bad. Provide a VOTE button. After user votes, present the result in percentage using labels next to the choices. [25 M]

SLIP 20

Q.1. Advanced Java:

A) Write a JDBC program to delete the details of given employee (ENo EName Salary). Accept employee ID through command line. [15 M]

```
import java.io.*;
import java.sql.*;
class Deleteemp
{
 static Connection cn;
 static Statement st;
 static ResultSet rs;
 static BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
 public static void main(String args[])

 {
     int e,k,ch,sal;
        String en;
     try
        {

        Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
           cn=DriverManager.getConnection("jdbc:odbc:Emp","","");
        st=cn.createStatement();

                        do
                        {

                                System.out.println("1. Delete ");
                                System.out.println("2. Exit ");
                                System.out.println("Enter Ur Choice");
                                ch=Integer.parseInt(br.readLine());
                                switch(ch)
                                {
```

```
                        case 1:
                                System.out.println("Enter the Eno");
                                e=Integer.parseInt(br.readLine());
                                String sd="delete from emp where eno=" +e;
                                k=st.executeUpdate(sd);
                                if(k>0)
                                {
                                        System.out.println("Record Is Deleted");
                                }
                                break;
                        case 2:
                                System.exit(0);
                        }
                        }
                        while(ch!=2);
                        }
                        catch(Exception et)
                         {
                                System.out.println(et);
                         }
                }
}
```

OR

```
 import java.sql.*;

 class EmployeeDelete{
        public static void main(String args[]){
                                                                try{

        Class.forName("oracle.jdbc.OracleDriver");

                                                                Connection con
        = DriverManager.getConnection(

        "jdbc:oracle:thin:tybca/bca@localhost:1521:XE");

                                                                int eid =
        Integer.parseInt(args[0]);


        PreparedStatement ps = con.prepareStatement("delete from employees where eno=?");

                                                                ps.setInt(1,eid);


        if(ps.executeUpdate()==1)

        System.out.println("Employee "+eid+" deleted successfully.");
                                                                else
```

```
        System.out.println("Employee "+eid+" not found.");

                                                                con.close();
                                                        }
                                                        catch(Exception e){

        System.out.println(e);
                                                        }
        }
        }
        or
    import java.sql.*;

 class EmpJDBC{
        public static void main(String args[])
        throws Exception{

        Class.forName("oracle.jdbc.OracleDriver");

                                                        Connection con =
        DriverManager.getConnection(

        "jdbc:oracle:thin:tybca/bca@localhost:1521:XE");

                                                        Statement s =
        con.createStatement();

                                                        int n =
        s.executeUpdate("delete from employees where ename like 'R%'");

        System.out.println("No.of records deleted:"+n);

                                                        con.close();
        }
        }
```

B) Write a java program in multithreading using applet for drawing temple. [25 M]

```
import java.awt.*;
import java.applet.*;
/* <APPLET    code= "flag.class"  width= "500" height= "300">
   </APPLET> */
public class flag extends Applet implements Runnable
{
        Thread t;
        int x1,x2,x3,y3,x4,y4,x5,ln;
        public void init()
        {
                t=new Thread(this);
                t.start();
                ln=1;
        }
```

```
public void run()
{
try{     if(ln==1) {         for(x1=200;x1>100;)
                          {
                               t.sleep(200);
                               repaint();
                           }
                    }
          ln=2;
          if(ln==2) {        for(x2=100;x2<150;)
                          {
                                t.sleep(200);
                                repaint();
                           }
                    }
          ln=3;
          if(ln==3) {       for(x3=150,y3=100;x3>125&&y3<125;)
                          {
                               t.sleep(200);
                               repaint();
                          }
                     }
          ln=4;
          if(ln==4) {     for(x4=125,y4=125;x4<150&&y4<150;)
                        {
                          t.sleep(200);
                          repaint();
                        }
                    }
          ln=5;
          if(ln==5)  {     for(x5=150;x5>100;)
                         {
                          t.sleep(200);
                          repaint();
                         }
                     }
          ln=1;
}catch(Exception e){
                               System.out.println(e);
                          }
run();
}
public void paint(Graphics g)
{
          if(ln==1&&x1>100)
          {
                    g.drawLine(100,200,100,x1-=5);
          }
          if(ln==2&&x2<150)
          {
                    g.drawLine(100,200,100,100);
```

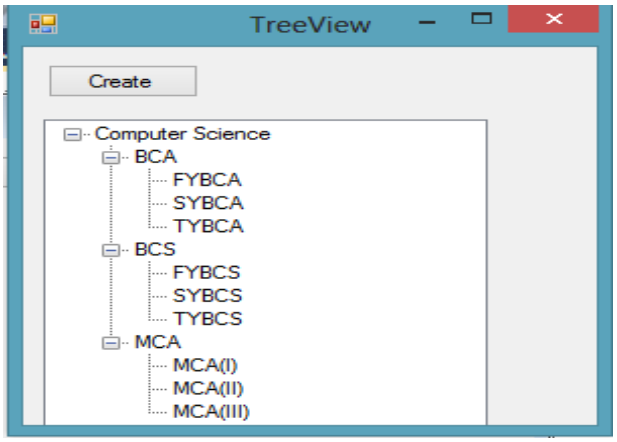
```
                g.drawLine(100,100,x2+=5,100);
            }
            if(ln==3&&x3>125&&y3<125)
            {
                g.drawLine(100,200,100,100);
                g.drawLine(100,100,150,100);
                g.drawLine(150,100,x3-=5,y3+=5);
            }
            if(ln==4&&x4<150&&y4<150)
            {
                g.drawLine(100,200,100,100);
                g.drawLine(100,100,150,100);
                g.drawLine(150,100,125,125);
                g.drawLine(125,125,x4+=5,y4+=5);
            }
            if(ln==5&&x5>100)
            {
                g.drawLine(100,200,100,100);
                g.drawLine(100,100,150,100);
                g.drawLine(150,100,125,125);
                g.drawLine(125,125,150,150);
                g.drawLine(150,150,x5-=5,150);
            }
        }
}
```

Q.2 Dot Net Framework:

A) Write a VB.NET program to generate Sample Tree View control. [15 M]

```
public class Form1
 Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles
Button1.Click

    TreeView2.Nodes.Add("Computer Science")
    TreeView2.Nodes(0).Nodes.Add("BCA")
    TreeView2.Nodes(0).Nodes.Add("BCS")
    TreeView2.Nodes(0).Nodes.Add("MCA")
    TreeView2.Nodes(0).Nodes(0).Nodes.Add("FYBCA")
    TreeView2.Nodes(0).Nodes(0).Nodes.Add("SYBCA")
    TreeView2.Nodes(0).Nodes(0).Nodes.Add("TYBCA")
    TreeView2.Nodes(0).Nodes(1).Nodes.Add("FYBCS")
    TreeView2.Nodes(0).Nodes(1).Nodes.Add("SYBCS")
    TreeView2.Nodes(0).Nodes(1).Nodes.Add("TYBCS")
    TreeView2.Nodes(0).Nodes(2).Nodes.Add("MCA(I)")
    TreeView2.Nodes(0).Nodes(2).Nodes.Add("MCA(II)")
    TreeView2.Nodes(0).Nodes(2).Nodes.Add("MCA(III)")
    'TreeView2.Nodes.Add("2Main Menu")
    'TreeView2.Nodes(1).Nodes.Add("Submenu")
```

```
    End Sub
End Class
```



B) Write a Web application in ASP.Net that generates the "IndexOutOfRange" exception when a button is clicked. Instead of displaying the above exception, it redirects the user to a custom error page. All the above should be done with the trace for the page being enabled. [25 M]

SLIP21

Q.1. Advanced Java: A) Write a java program to display name and priority of a Thread. [15 M]

```
class MyThread extends Thread{
        public void run(){
                                                                for(int i=1;i<=10;i++){

        System.out.println(Thread.currentThread());
                                                                        if(i==5){

        setPriority(2);

        setName("MyThread");
                                                                        }
                                                                }
        }
}

class ThreadPriorityDemo{
        public static void main(String args[]){
                                                                new
        MyThread().start();
        }
        }
```

B) Write a SERVLET program in java to accept details of student (SeatNo, Stud_Name, Class, Total_Marks). Calculate percentage and grade obtained and display details on page. [25 M]

student.html

```
<form method='post' action='student.jsp'>
<table>
<tr>
        <td><b>Roll No:</b></td>
```

```
        <td><input type='text' name='rno'></td>
</tr>
<tr>
        <td><b>Name:</b></td>
        <td><input type='text' name='name'></td>
</tr>
<tr>
        <td><b>Gender:</b></td>
        <td>
        <select name='gender'>
        <option value=''>---</option>
        <option value='Male'>Male</option>
        <option value='Female'>Female</option>
        </select>
        </td>
</tr>
<tr>
        <td><b>Computer Knowledge:</b></td>
        <td>
        <select name='ck'>
        <option value=''>---</option>
        <option value='Beginner'>Beginner</option>
        <option value='Intermediate'>Intermediate</option>
        <option value='Expert'>Expert</option>
        </select>
        </td>
</tr>
<tr>
        <td><b>Class:</b></td>
        <td>
        <select name='class'>
        <option value=''>---</option>
        <option value='FY'>FY</option>
        <option value='SY'>SY</option>
        <option value='TY'>TY</option>
        </select>
        </td>
</tr>
<tr>
        <td><input type='submit'></td>
        <td><input type='reset'></td>
</tr>
</table>
</form>
```

student.jsp

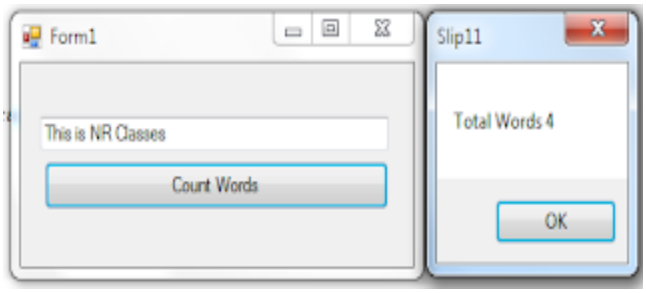
```
<table border=1>
<tr>
        <td><b>Roll No:</b></td>
        <td><%=request.getParameter("rno")%></td>
</tr>
```

```
<tr>
        <td><b>Name:</b></td>
        <td><%=request.getParameter("name")%></td>
</tr>
<tr>
        <td><b>Gender:</b></td>
        <td><%=request.getParameter("gender")%></td>
</tr>
<tr>
        <td><b>Computer Knowledge:</b></td>
        <td><%=request.getParameter("ck")%></td>
</tr>
<tr>
        <td><b>Class:</b></td>
        <td><%=request.getParameter("class")%></td>
</tr>
</table>
```

Q.2 Dot Net Framework:

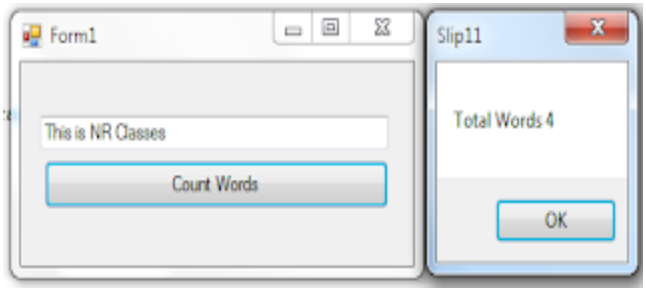
A) Write a VB.NET program to accept sentences in text box and count the number of words and display the count in message box. [15 M]

```
Public Class Form1
   Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles
Button1.Click
      Dim sentence As String
      Dim i As Integer
      Dim wc As Integer
      sentence = TextBox1.Text
      Dim arr() As Char = sentence.ToCharArray()
      For i = 0 To arr.Length - 1
         If arr(i) = " " Then
            wc = wc + 1
         End If
      Next
      MsgBox("Total Words " & wc + 1)
   End Sub
End Class
```



B) Write ASP.Net application for the following: 1. Create a table EMP(eno, ename, edesignation, salary, joindate) 2. Insert a Record. 3. Update a record [25 M]

```
Public Class Form1
    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles
Button1.Click
        Dim sentence As String
        Dim i As Integer
        Dim wc As Integer
        sentence = TextBox1.Text
        Dim arr() As Char = sentence.ToCharArray()
        For i = 0 To arr.Length - 1
            If arr(i) = " " Then
                wc = wc + 1
            End If
        Next
        MsgBox("Total Words " & wc + 1)
    End Sub
End Class
```



SLIP22

Q.1. Advanced Java: A) Write a java program to display Date and Time of Server machine on client machine. [15 M]

D) Write a JSP program to accept the details of Account (ANo, Type, Bal) and store it into database and display it in tabular form. [25 M].

SaveAccount.html

```
<html><body>
<form method=get action="saveAccount.jsp">
Enter Account No. : <input type=text name=ano><br><br>
Enter Account Type:<input type=text name=type><br><br>
Enter Balance : <input type=text name=bal><br><br>
<input type=submit value="Save">
</form>
</body></html>
```

saveAccount.jsp

```
<html><body>
<%@ page import="java.sql.*;" %>
<%! int ano,bal;
     String type;  %>
<%
    ano=Integer.parseInt(request.getParameter("ano"));
    type=request.getParameter("type");
    bal=Integer.parseInt(request.getParameter("bal"));
    try{
        Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
        Connection cn=DriverManager.getConnection("jdbc:odbc:acnt","","");
        PreparedStatement s=cn.prepareStatement("insert into Account values(?,?,?)");
        s.setInt(1,ano);
        s.setString(2,type);
        s.setInt(3,bal);
        s.executeUpdate();
        out.println("Record is saved");
        Statement st=cn.createStatement();
        ResultSet rs=st.executeQuery("select * from Account");
%>
<table border="1" width="40%">
<%     while(rs.next())
        {
%>
<tr> <td><%= rs.getInt("ano") %></td>
        <td><%= rs.getString("type") %></td>
        <td><%= rs.getInt("bal") %></td>
</tr>
<%
        }
        cn.close();
       }catch(Exception e)
        {
            out.println(e);
        }
%>
</body></html>
```

Q.2 Dot Net Framework: A) Write a program in C# to create a function to swap the values of two integers. [15 M]

```
using System;
using System.Collections.Generic;
using System.Text;

namespace ConsoleApplication4
{
    class Class7
    {
        public static void Main(string[] args)
        {
            int a = 5, b = 10;
            Console.WriteLine("Before swap a= " + a + " b= " + b);
            a = a * b; //a=50 (5*10)
```

```
            b = a / b; //b=5 (50/10)
            a = a / b; //a=10 (50/5)
            Console.Write("After swap a= " + a + " b= " + b);
            Console.ReadLine();

        }

    }
}
```

B) Write a Vb.net program to design the following form; it contains the three menus Color (Red, Blue, and Green), Window (Maximize, Minimize, and Restore) and Exit. On Selection of any menu or submenu result should affect the form control(for example if user selected Red color from Color menu back color of form should get changed to Red and if user selected Maximize from Window Menu then form should get maximized). [25 M]

SLIP23

Q.1. Advanced Java:

A) Write a Java Program to display the details of College(CID, CName, address, Year) on JTable. [15 M]

```
import java.sql.*;
import java.awt.*;
import java.awt.event.*;
import javax.swing.*;

class College extends JFrame{
        private JLabel lblID,lblName,lblAddr,lblYear;
        private JTextField txtID,txtName,txtAddr,txtYear;
        private JButton btnSave,btnClose;
        private JPanel panCenter,panSouth;

        private Connection con;
        private PreparedStatement ps;

        public College()
        {
        lblID = new JLabel("College ID:");
        lblName = new JLabel("College Name:");
        lblAddr = new JLabel("Address:");
        lblYear = new JLabel("Year:");
        txtID = new JTextField();
        txtName = new JTextField();
        txtAddr = new JTextField();
        txtYear = new JTextField();
        panCenter = new JPanel();
        panCenter.setLayout(new GridLayout(4,2));
        panCenter.add(lblID);
        panCenter.add(txtID);
        panCenter.add(lblName);
```

```
panCenter.add(txtName);
panCenter.add(lblAddr);
panCenter.add(txtAddr);
panCenter.add(lblYear);
panCenter.add(txtYear);
btnSave = new JButton("Save");
btnClose = new JButton("Close");
panSouth = new JPanel();
panSouth.add(btnSave);
panSouth.add(btnClose);
setTitle("College Information");
setSize(400,200);
setLocation(100,100);
add(panCenter,"Center");
add(panSouth,"South");
setVisible(true);
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
try{
Class.forName("oracle.jdbc.OracleDriver");
con = DriverManager.getConnection(
"jdbc:oracle:thin:tybca/bca@localhost:1521:XE");
}
catch(Exception e){
JOptionPane.showMessageDialog(null,e);
dispose();
}
btnSave.addActionListener(new ActionListener(){
public void actionPerformed(ActionEvent ae){
try{
int cid = Integer.parseInt(txtID.getText());
String cname = txtName.getText();
String addr = txtAddr.getText();
int yr = Integer.parseInt(txtYear.getText());
ps = con.prepareStatement("insert into college values(?,?,?,?)");
ps.setInt(1,cid);
ps.setString(2,cname);
ps.setString(3,addr);
ps.setInt(4,yr);
ps.executeUpdate();
txtID.setText("");
txtName.setText("");
txtAddr.setText("");
txtYear.setText("");
txtID.requestFocus();
}
catch(Exception e){
JOptionPane.showMessageDialog(null,e);
}
}
});
btnClose.addActionListener(new ActionListener(){
```

```
public void actionPerformed(ActionEvent ae){
dispose();
}
});
}

public static void main(String args[]){
new College();
}
}
```

B) Write a SERVLET application to accept username and password, search them into database, if found then display appropriate message on the browser otherwise display error message. [25 M]

Q.2 Dot Net Framework:

A) Write a program in C# to create a function to display the n terms of Fibonacci sequence. [15 M]

```
using System;
  public class FibonacciExample
   {
     public static void Main(string[] args)
      {
        int n1=0,n2=1,n3,i,number;
        Console.Write("Enter the number of elements: ");
        number = int.Parse(Console.ReadLine());
        Console.Write(n1+" "+n2+" ");
        for(i=2;i<number;++i)
        {
         n3=n1+n2;
         Console.Write(n3+" ");
         n1=n2;
         n2=n3;
        }
      }
   }
```

B) Create the application in ASP.Net that accepts name, password ,age , email id, and user id. All the information entry is compulsory. Password should be reconfirmed. Age should be within 21 to 30. Email id should be valid. User id should have at least a capital letter and digit as well as length should be between 7 and 20 characters. [25 M]

SLIP24

Q.1. Advanced Java: A) Create a JSP page to accept a number from a user and display it in words: Example: 123 – One Two Three. The output should be in red color. [15 M]

NumberWord.html

```
<html>
```

```
<body>
<form method=get action="NumberWord.jsp">
Enter Any Number : <input type=text name=num><br><br>
<input type=submit value="Display">
</form>
<body>
</html>
```

NumberWord.jsp

```
<html>
<body>
<font color=red>
<%! int i,n;
      String s1;
%>
<%   s1=request.getParameter("num");
       n=s1.length();
       i=0;
       do
       {
         char ch=s1.charAt(i);
         switch(ch)
          {
             case '0': out.println("Zero  ");break;
             case '1': out.println("One  ");break;
             case '2': out.println("Two  ");break;
             case '3': out.println("Three  ");break;
             case '4': out.println("Four ");break;
             case '5': out.println("Five  ");break;
            case '6': out.println("Six  ");break;
            case '7': out.println("Seven  ");break;
            case '8': out.println("Eight  ");break;
            case '9': out.println("Nine  ");break;
         }
         i++;
       }while(i<n);
%>
</font>
</body>
</html>
```

B) Write a menu driven program in Java for the following: Assume Emp table with attributes (ENo, EName, salary, Desg) is already created. 1. Insert 2. Update 3. Delete 4. Search 5. Display 6. Exit. [25 M]

```
 import java.io.*;
import java.sql.*;
class Menu
{
 static Connection cn;
```

```
static Statement st;
static ResultSet rs;
static BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
public static void main(String args[])

{
    int e,k,ch,sal;
       String en;
    try
       {

       Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
          cn=DriverManager.getConnection("jdbc:odbc:Emp","","");
       st=cn.createStatement();

                        do
                        {
                                System.out.println("1. Insert ");
                                System.out.println("2. Update ");
                                System.out.println("3. Delete ");
                                System.out.println("4. Display ");
                                System.out.println("5. Exit ");
                                System.out.println("Enter Ur Choice");
                                ch=Integer.parseInt(br.readLine());
                                switch(ch)
                                {
                                case 1:
                                                System.out.println("Enter the Eno");
                                                e=Integer.parseInt(br.readLine());
                                                System.out.println("Enter the Ename");
                                                en=br.readLine();
                                                System.out.println("Enter Salary");
                                                sal=Integer.parseInt(br.readLine());
                                                String str="insert into emp values(" + e + ","'+ en + "'," + sal
+")";
                                                k=st.executeUpdate(str);
                                                if(k>0)
                                                {
                                                        System.out.println("Record Is Added");
                                                }
                                                break;
                                case 2:
                                                System.out.println("Enter the Eno");
                                                e=Integer.parseInt(br.readLine());
                                                System.out.println("Enter the Ename");
                                                en=br.readLine();
                                                String ss="update emp set ename='" + en + "' where eno="+e;
                                                k=st.executeUpdate(ss);
                                                if(k>0)
                                                {
                                                        System.out.println("Record Is Updated");
```

```
                                        }
                                        break;
                                case 3:
                                        System.out.println("Enter the Eno");
                                        e=Integer.parseInt(br.readLine());
                                        String sd="delete from emp where eno=" +e;
                                        k=st.executeUpdate(sd);
                                        if(k>0)
                                        {
                                                System.out.println("Record Is Deleted");
                                        }
                                        break;


                                case 4:

                                        rs=st.executeQuery("select *  from emp");
                                        while(rs.next())
                                        {
                                        System.out.println(rs.getInt("eno") + "\t" +

                rs.getString("ename")+"\t"+rs.getInt("sal"));
                                        }
                                        break;

                                case 5:
                                        System.exit(0);
                                }
                                }
                                while(ch!=5);
                                }
                                catch(Exception et)
                                 {
                                        System.out.println(et);
                                 }
                        }
}
```

Q.2 Dot Net Framework: A) Write a program in C#.Net to create a function to check whether a number is prime or not. [15 M]

```
using System;
 public class PrimeNumberExample
  {
    public static void Main(string[] args)
     {
        int n, i, m=0, flag=0;
        Console.Write("Enter the Number to check Prime: ");
        n = int.Parse(Console.ReadLine());
        m=n/2;
```

```
        for(i = 2; i <= m; i++)
        {
         if(n % i == 0)
          {
           Console.Write("Number is not Prime.");
           flag=1;
           break;
          }
        }
        if (flag==0)
         Console.Write("Number is Prime.");
    }
  }
```

B) Write a VB.NET program to create Author table (aid, aname, book_ name). Insert the records (Max 5). Delete a record of author who has written “VB.NET book” and display remaining records on the data grid view. (Use MS Access to create db.) [25 M]

SLIP25

Q.1. Advanced Java: A) Write a Java program to accept a number through client terminal, send it to the Server, Server calculates its factors and sends it to the client. [15 M] B) Write a Java Program for the following: Assume database is already created.

Q.2 Dot Net Framework: A) Write a program in C#.Net to create a function to calculate the sum of the individual digits of a given number. [15 M]

```
using System;

public class functionexcercise
{
   public static int SumCal(int number)
   {
      string n1 = Convert.ToString(number);
      int sum = 0;
      for (int i = 0; i < n1.Length; i++)
         sum += Convert.ToInt32(n1.Substring(i, 1));
      return sum;
   }

   public static void Main()
   {
      int num;
      Console.Write("Enter a number: ");
      num = Convert.ToInt32(Console.ReadLine());
      Console.WriteLine("The sum of the digits of the number {0} is : {1} \n", num, SumCal(num));
      Console.ReadLine();
   }
```

}

B) Create a Web Application in ASP.Net to display all the Empname and Deptid of the employee from the database using SQL source control and bind it to GridView. Database fields are(DeptId, DeptName, EmpName, Salary). [25 M]

SLIP26

Q.1. Advanced Java:

A) Write a java program to display list of college names from college table. (Assume College table (CID, CName, addr) is already created. [15 M]

B) Write a SERVLET program to Design an HTML page containing 4 option buttons (Painting, Drawing, Singing and swimming) and 2 buttons reset and submit. When the user clicks submit, the server responds by adding cookie containing the selected hobby and sends the HTML page to the client. Program should not allow duplicate cookies to be written. [25 M]

Q.2 Dot Net Framework:

A). Write a program in C#.Net to create a recursive function to find the factorial of a given number [15 M]

```
using System;
 public class FactorialExample
  {
   public static void Main(string[] args)
    {
     int i,fact=1,number;
     Console.Write("Enter any Number: ");
     number= int.Parse(Console.ReadLine());
     for(i=1;i<=number;i++){
      fact=fact*i;
     }
     Console.Write("Factorial of " +number+" is: "+fact);
    }
  }
```

C) Write a ASP.Net program to create a Login Module which adds Username and Password in the database. Username in the database should be a primary key. [25 M]

SLIP27

Q.1. Advanced Java:

A) Write a JSP script to accept the details of Teacher (TID, TName, Desg, Subject , Qualification) and display it on the browser. Use appropriate controls for accepting data. [15 M]

```
   <% page import="java.io.*,java.util.*,java.sql.*"%>
<% page inport="javax.servlet.http.*,javax.servlet.*"%>
<% taglib uri="http://java.sun.com/jsp/jstl/core"prefix="c"%>
<% taglib uri="http://java.sun.com/jsp/jstl/sql"prefix="sql"%>
```

```
<html>
<head>
<title>Jdisplay operation</title>
</head>
<body>
<sql:setDataSource var="snapshot" driver="com.mysql.jdbc.Driver"
                                url="jdbc:mysql:mysql://localhost/TEST"
                                 user="root"  password="pass123"/>

<sql :update dataSource="${snapsgot}" var="result">
INSERT INTO Hospiltal VALUES (104,2 'Nuha' , 'A');
</sql:update>

<sql :update dataSource="${snapsgot}" var="result">
SELECT *from Student;
</sql:query>

<table border="1"  width="100%">
<tr>
    <th>Roll No</th>
    <th>Stud Name</th>
    <th>Gender</th>
    <th>Computer_Knowledge</th>
    <th>Class</th>
</tr>
<c:forEach var="row" items=$result.rows}">
<tr>
    <td><c:out value=${row.Roll No}"/></td>
    <td><c:out value=${row.Stud Name}"/></td>
    <td><c:out value=${row.Gender}"/></td>
    <td><c:out value=${row.Computer_Knowledge}"/></td>
    <td><c:out value=${row.Class}"/></td>
</tr>
</c:forEach>
</table>
</body>
</html>
```

B) Write a Java Program for the implementation of scrollable ResultSet. Assume Teacher table with attributes (TID, TName, Salary, Subject) is already created. [25 M]

Q.2 Dot Net Framework:

A) Write a program in C#.Net to find the length of a string. [15 M]

```
using System;
using System.Collections;

namespace Demo {

   class Program {
```

```
    static void Main(string[] args) {

      string str = "Amit";

      Console.WriteLine("String: "+str);
      Console.WriteLine("String Length: "+str.Length);
      Console.ReadKey();
    }
  }
}
```

B) Create a web application in ASP.Net which may have a textbox. Now user must type some data into it, the data he can enter is only 255 characters. After he crosses the limit then the last word should not by typed and at the same time color of textbox should be red. [25 M]

SLIP28

Q.1. Advanced Java: A) Write a java program for the implementation of synchronization. [15 M]

B) Write a Java program to design a following screen: Select Emp No If user selects EmpNo from Choice component then details of selected employee must be displayed in JTable. [25 M]

Q.2 Dot Net Framework:

A) Write a program in C#.Net to read n numbers in an array and display it in reverse order. [15 M]

```
using System;
using System.Collections.Generic;
using System.Text;

namespace ConsoleApplication4
{
    class Class5
    {
        public static void Main()
{
   int i,n;
   int[] a= new int[100];

       Console.Write("\n\nRead n number of values in an array and display it in reverse
order:\n");

Console.Write("--------------------------------------------------------------------------\n");

   Console.Write("Input the number of elements to store in the array :");
   n = Convert.ToInt32(Console.ReadLine());


   Console.Write("Input {0} number of elements in the array :\n",n);
   for(i=0;i<n;i++)
      {
         Console.Write("element - {0} : ",i);
         a[i] = Convert.ToInt32(Console.ReadLine());
         }

   Console.Write("\nThe values store into the array are : \n");
   for(i=0;i<n;i++)
     {
```

```
                Console.Write("{0}  ",a[i]);
             }

          Console.Write("\n\nThe values store into the array in reverse are :\n");
          for(i=n-1;i>=0;i--)
             {
                Console.Write("{0} ",a[i]);
              }
          Console.Write("\n\n");
          Console.ReadLine();

        }
      }

         }
```

B) Write a VB.NET program to create a table Patient (PID, PName, Contact No, Disease). Insert five records into table and display appropriate message in message box. [25 M]

SLIP29

Q.1. Advanced Java: A) Write a java program using multithreading for the following:

1. Display all the odd numbers between 1 to n.
2. Display all the prime numbers between 1 to n. [15 M]

Primp.html

```
<html>
<body>
<form method=post action="prime.jsp">
Enter Limit : <input type=text name=t1><br>
<input type=submit>
</form>
</body>
</html>
```

Prime.jsp

```
<html>
<body>

<%! int n,cnt,i,j; %>
<% n=Integer.parseInt(request.getParameter("t1"));

for(i=1;i<=n;i++)
{
 cnt=0;
 for(j=2;j<i;j++)
  {
   if(i%j==0)
   {
    cnt++;
   }
  }
  if(cnt==0)
```

```
  {
%><br><font color=blue size=5>
<%
    out.println("  "+i);
  }
}
%>
</body>
</html>
```

B) Write a SERVLET program to change inactive time interval of session. [25 M]

Q.2 Dot Net Framework: A) Write a program in C#.Net to separate the individual characters from a String. [15 M]

```
using System;

public class IndividualCharacters
{
   public static void Main()
   {
      String string1 = "characters";

      //Displays individual characters from given string
      Console.WriteLine("Individual characters from given string:");

      //Iterate through the string and display individual character
      for(int i = 0; i < string1.Length; i++){
         Console.Write(string1[i] + "  ");
      }
   }
}
```

B) Write a VB.NET program to accept the details of customer (CName, Contact No, Email_id). Store it into the database with proper validation and display appropriate message by using Message box. [25 M]

SLIP30

Q.1. Advanced Java: A) Write a JSP script to accept a String from a user and display it in reverse order. [15 M]

B) Write a java program in multithreading using applet for moving car. [25 M]

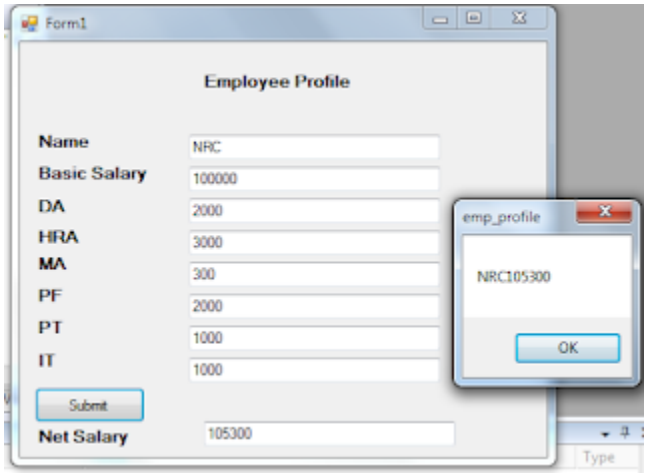
```
import java.awt.*;
/*<applet code="car.class" height=400 width=350>
```

```
</applet>*/
public class car extends java.applet.Applet implements Runnable
{
   Thread t;
   int f,x;
   public void init()
   {
         t=new Thread(this);
       t.start();
         f=0;x=0;


   }

   public void run()
   {
         try{

         if (f==0)
         {
                  t.sleep(200);
                  f=1;
                  x=x+5;
                  repaint();
         }
         else
         {
                  t.sleep(200);
                  x=x+5;
                                    repaint();
                  f=0;

         }
         }catch(Exception e){
         }
         run();

   }


   public void paint(Graphics g)
   {

      g.drawLine(0,120,350,120);
      g.drawLine(0,200,350,200);
      if (f==0)
         {
                  g.setColor(Color.red);
                  g.fillRect(x,130,20,20);
             g.fillRect(x+2,170,20,20);
                  f=1;
```

```
        }
        else
        {       g.setColor(Color.blue);
                g.fillRect(x+5,130,20,20);
           g.fillRect(x,170,20,20);

                f=0;
        }
    }
        }
```

Q.2 Dot Net Framework: A) Write a VB.NET program to design following screen, accept the details from the user. Clicking on Submit button Net Salary should be calculated and displayed into the Textbox. Display the Messagebox informing the Name and Net Salary of employee. [15 M]

```
Public Class Form1
    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles
Button1.Click
        txtNetSal.Text = CInt(txtBasic.Text) + CInt(txtDA.Text) + CInt(txtHRA.Text) + CInt(txtMA.Text) +
CInt(txtPF.Text) - CInt(txtPT.Text) - CInt(txtIT.Text)
        MsgBox(txtName.Text & txtNetSal.Text)
    End Sub
End Class
```



B) Write a VB.NET program to accept the details Supplier (SupId, SupName, Phone No, Address) store it into the database and display it. [25 M