

Q1) Write a program to create three buttons with captions (OK, Cancel , Reset).

```
package peprograms;
import java.awt.*;
public class PEPrograms {
    Button b1,b2,b3;
    Frame f;
    PEPrograms()
    {
        f=new Frame();
        f.setSize(500,500);
        f.setTitle("BUTTONS");
        f.setLayout(new FlowLayout());
        b1=new Button("OK");
        b2=new Button("Cancel");
        b3=new Button("Reset");
        f.add(b1);
        f.add(b2);
        f.add(b3);
        f.setVisible(true);
    }
    public static void main(String[] args) {
        new PEPrograms();
    }
}
```

Q2) Develop a program to select multiple languages know to user (Marathi ,Hindi ,English ,Sanskrit)

```
package peprograms;
import java.awt.*;
public class PEPrograms {
    List l;
    Frame f;
    PEPrograms()
    {
        f=new Frame();
        f.setSize(500,500);
        f.setTitle("SELECTION");
        f.setLayout(new FlowLayout());
        l=new List(4,true);
        l.add("Marathi");
        l.add("English");
        l.add("Hindi");
        l.add("Sanskrit");
        f.add(l);
        f.setVisible(true);
    }
    public static void main(String[] args) {
        new PEPrograms();
    }
}
```

Q3) Develop an applet/application to select multiple names of news Papers.

```
import java.applet.Applet;
import java.awt.*;
public class PEPrograms extends Applet {
    public void init() {
        setSize(200, 300);
        List l = new List(5, true);
        l.add("Sakal");
        l.add("Times Of India");
        l.add("Lokmat");
        l.add("Times Now");
        l.add("Times Of NYC");
        add(l);
    }
}
```

Q4) Develop an applet using List components to add names of 10 different cities.

```
import java.applet.Applet;
import java.awt.*;
public class PEPrograms extends Applet {
    public void init() {
        setSize(200, 300);
        List l = new List(10, true);
        l.add("Pune");
        l.add("Mumbai");
        l.add("Delhi");
        l.add("Jaipur");
        l.add("Kashmir");
        l.add("Hyderabad");
        l.add("Kolkata");
        l.add("Surat");
        l.add("Ahmedabad");
        l.add("Chennai");
        add(l);
    }
}
```

Q5) Program to demonstrate the use of Border layout .

```
package peprograms;
import java.awt.*;
public class PEPrograms {
    Button b1,b2,b3,b4,b5;
    Frame f;
    PEPrograms()
    {
        f=new Frame();
        f.setSize(500,500);
        f.setTitle("BORDER");
        f.setLayout(new BorderLayout());
        b1=new Button("NORTH");
        b2=new Button("SOUTH");
        b3=new Button("EAST");
        b4=new Button("WEST");
    }
}
```

```

        b5=new Button("CENTER");
        f.add(b1,BorderLayout.NORTH);
        f.add(b2,BorderLayout.SOUTH);
        f.add(b3,BorderLayout.EAST);
        f.add(b4,BorderLayout.WEST);
        f.add(b5,BorderLayout.CENTER);
        f.setVisible(true);
    }
    public static void main(String[] args) {
        new PEPrograms();
    }
}

```

Q6) Program to demonstrate the use of Grid layout .

```

package peprograms;
import java.awt.*;
public class PEPrograms {
    Button b1,b2,b3,b4;
    Frame f;
    PEPrograms()
    {
        f=new Frame();
        f.setSize(500,500);
        f.setTitle("GRID");
        f.setLayout(new GridLayout(2,2));
        b1=new Button("BUTTON 1");
        b2=new Button("BUTTON 2");
        b3=new Button("BUTTON 3");
        b4=new Button("BUTTON 4");
        f.add(b1);
        f.add(b2);
        f.add(b3);
        f.add(b4);
        f.setVisible(true);
    }
    public static void main(String[] args) {
        new PEPrograms();
    }
}

```

Q7) Write a program which creates Menu of different colors and disable menu item for Black color.

```

package peprograms;
import java.awt.*;
public class PEPrograms {
    Frame f;
    MenuBar M;
    Menu colors;
    MenuItem red,blue,green,orange,black;
    PEPrograms()
    {
        f=new Frame();
        f.setSize(500,500);
    }
}

```

```

        f.setTitle("COLORS");
        M=new MenuBar();
        colors=new Menu("Colors");
        red=new MenuItem("RED");
        blue=new MenuItem("BLUE");
        green=new MenuItem("GREEN");
        orange=new MenuItem("ORANGE");
        black=new MenuItem("BLACK");
        f.setMenuBar(M);
        M.add(colors);
        colors.add(red);
        colors.add(blue);
        colors.add(green);
        colors.add(orange);
        colors.add(black);
        black.setEnabled(false);
        f.setVisible(true);
    }
    public static void main(String[] args) {
        new PEPrograms();
    }
}

```

Q8) Develop a program to demonstrate the use of JProgressBar.

```

package peprograms;
import javax.swing.*;
import java.awt.*;
public class PEPrograms {
    JFrame f;
    JProgressBar jp;
    PEPrograms()
    {
        f=new JFrame();
        f.setSize(500,500);
        f.setTitle("PROGRESS BAR");
        f.setLayout(new BorderLayout());
        jp=new JProgressBar();
        jp.setStringPainted(true);
        jp.setValue(100);
        f.add(jp,BorderLayout.SOUTH);
        f.setVisible(true);
    }
    public static void main(String[] args) {
        new PEPrograms();
    }
}

```

Q9) Write a program to perform addition of two nos using event.

```

package peprograms;
import javax.swing.*;
import java.awt.event.*;
public class PEPrograms implements ActionListener{
    JFrame f;

```

```

JLabel l1,l2;
JTextField t1,t2,result;
JButton add;
public void actionPerformed(ActionEvent e)
{
    int
sum=(Integer.parseInt(t1.getText())+Integer.parseInt(t2.getTex
t()));
    result.setText(String.valueOf(sum));
}
PEPrograms()
{
    f=new JFrame();
    f.setSize(500,500);
    f.setTitle("PROGRESS BAR");
    f.setLayout(null);
    l1=new JLabel("Enter 1st Number: ");
    t1=new JTextField();
    l2=new JLabel("Enter 2nd Number: ");
    t2=new JTextField();
    add=new JButton("ADD");
    result=new JTextField();
    l1.setBounds(100,100,100,30);
    t1.setBounds(250,100,100,30);
    f.add(l1);
    f.add(t1);
    l2.setBounds(100,200,100,30);
    t2.setBounds(250,200,100,30);
    f.add(l2);
    f.add(t2);
    add.setBounds(150,300,100,30);
    f.add(add);
    result.setBounds(150,350,100,30);
    f.add(result);
    add.addActionListener(this);
    f.setVisible(true);
}
public static void main(String[] args) {
    new PEPrograms();
}
}

```

Q10) Program using AWT to create a menubar in an applet window.

```

import java.applet.Applet;
import java.awt.*;
public class PEPrograms extends Applet {
    public void init() {
        setSize(500,500);
        MenuBar mb=new MenuBar();
        Menu cm=new Menu("COLORS");
        MenuItem red=new MenuItem("red");
        MenuItem green=new MenuItem("green");
    }
}

```

```

        MenuItem yellow=new MenuItem("yellow");
        cm.add(red);
        cm.add(green);
        cm.add(yellow);
        mb.add(cm);
        setLayout(new BorderLayout());
        Frame f= (Frame) this.getParent().getParent();
        f.setMenuBar(mb);
    }
}

```

Q11) Write a program using swing to display a JComboBox in an applet

```

import java.applet.Applet;
import javax.swing.*.*;
import java.awt.*.*;
public class PEPrograms extends Applet {
    public void init() {
        String color[]={"Pune", "Mumbai", "Kolkata"};
        JComboBox cb=new JComboBox(color);
        setLayout(new FlowLayout());
        add(cb);
    }
}

```

Q12) Write a Jtree program to show root directory and its subFolders of your System.

```

import javax.swing.JApplet;
import java.awt.*.*;
import javax.swing.*.*;
import javax.swing.tree.*.*;
public class PEPrograms extends JApplet {
    JTree tree;
    public void init()
    {
        setLayout(new BorderLayout());
        DefaultMutableTreeNode Top = new
        DefaultMutableTreeNode("System",true);
        DefaultMutableTreeNode A = new DefaultMutableTreeNode("C:");
        Top.add(A);
        DefaultMutableTreeNode B = new DefaultMutableTreeNode("D:");
        Top.add(B);
        DefaultMutableTreeNode a1 = new
        DefaultMutableTreeNode("Windows");
        A.add(a1);
        DefaultMutableTreeNode a2 = new
        DefaultMutableTreeNode("Users");
        A.add(a2);
        DefaultMutableTreeNode b1 = new
        DefaultMutableTreeNode("Java");
        B.add(b1);
        DefaultMutableTreeNode b2 = new
        DefaultMutableTreeNode("Python");
        B.add(b2);
        tree=new JTree(Top);
    }
}

```

```

Container con= getContentPane();
con.add(tree,BorderLayout.CENTER);
}
}

```

Q13) Program to create a JTable On JApplet Window

```

import javax.swing.JApplet;
import java.awt.*;
import javax.swing.*;
import javax.swing.tree.*;
public class PEPrograms extends JApplet {
    JTable jt;
    JScrollPane js;
    String[][]
    data={{ "A", "1", "20"}, {"B", "2", "19"}, {"C", "3", "18"} };
    String[] ch={"name", "rollno", "Marks"};
    public void init()
    {
        jt=new JTable(data,ch);
        js=new JScrollPane(jt);
        add(js);
    }
}

```

Q14) Program to display the key pressed on Applet Window.

```

import java.applet.Applet;
import java.awt.*;
import java.awt.event.*;
public class PEPrograms extends Applet implements KeyListener{
    int x=0;
    public void init() {
        addKeyListener(this);
    }
    public void keyPressed(KeyEvent ke)
    {
        showStatus("KeyPressed count="+x);
        x++;
    }
    public void keyTyped(KeyEvent ke){
    }
    public void keyReleased(KeyEvent ke) {
    }
}

```

Q15) Write a program to develop a frame to Select the different states of India using JComboBox.

```

package peprograms;
import javax.swing.*;
import java.awt.*;
public class PEPrograms extends Frame{
    String color[]={"Maharastra", "Gujarat", "Rajasthan"};
    JComboBox cb;
    PEPrograms() {
        cb=new JComboBox(color);
    }
}

```

```

        setLayout(new FlowLayout());
        add(cb);
        setSize(500,500);
        setVisible(true);
    }
    public static void main(String[] args) {
        new PEPrograms();
    }
}

```

Q16) Develop a program to demonstrate the use of JProgressBar.

--REPEATED--

Q17) Write a program using JPasswordField and JTextField to demonstrate the use of user authentication Write a program using URL class to retrieve the host, protocol, port and file of URL <http://www.msbt.org.in>

```

package peprograms;
import javax.swing.*.*;
import java.awt.event.*;
import java.applet.Applet;
public class PEPrograms extends Applet implements
ActionListener{
    JLabel j1,j2;
    JTextField t1;
    JPasswordField t2;
    JButton b;
    public void init(){
        t1=new JTextField();
        t2=new JPasswordField();
        b=new JButton("Login");
        j1=new JLabel("Enter Username");
        j2=new JLabel("Enter Password");
        setSize(500,500);
        setLayout(null);
        t1.setBounds(200,100,120,30);
        t2.setBounds(200,150,120,30);
        j1.setBounds(100,100,120,30);
        j2.setBounds(100,150,120,30);
        b.setBounds(150,200,120,30);
        add(j1);
        add(j2);
        add(t1);
        add(t2);
        add(b);
        b.addActionListener(this);
    }
    public void actionPerformed(ActionEvent ae) {
        if((t1.getText().equals("Krish"))&&(t2.getText().equals("Krish
123"))){
            showStatus("Login successful");
        }
        else
            showStatus("Login Failed");
    }
}

```



```

package peprograms;
import java.net.*;
public class PEPrograms {
    public static void main(String[] args) throws
    MalformedURLException {
        URL ur = new URL("http://www.msbte.org.in");
        System.out.println("Protocol: "
+ur.getProtocol());
        System.out.println("Host: " +ur.getHost());
        System.out.println("Port: " +ur.getPort());
        System.out.println("File: " +ur.getFile());
    }
}

```

Q18) Create a student database(sname,rollno,marks) write a program to display records in database using createStatement

```

package peprograms;
import java.sql.*;
public class PEPrograms {
    public static void main(String[] args) {
        try
        {
            Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
            Connection con =
DriverManager.getConnection("jdbc:odbc:kvrp");
            Statement st = con.createStatement();
            ResultSet rs = st.executeQuery("select * from
Table1");
            System.out.println("Student record: ");
            System.out.println("sname \t rollno \t marks");
            while(rs.next())
            {
                System.out.print(rs.getString(1) + "\t");
                System.out.print(rs.getInt(2) + "\t");
                System.out.println(rs.getInt(3));
            }
        }
        catch(Exception e)
        {
        }
    }
}

```

Q19) Create a employee database(sname,empid,salary) write a program to add new records in database createStatement

```
package peprograms;
import java.sql.*;
public class PEPrograms {
    public static void main(String[] args){
        try
        {
            Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
            Connection con =
DriverManager.getConnection("jdbc:odbc:empdriver");
            Statement st = con.createStatement();
            int i = st.executeUpdate("Insert into emp
Values('parth', 4, 180000)");
            System.out.println("No of rows added: " + i);
            ResultSet rs = st.executeQuery("Select * from
emp");

            System.out.println("sname \t empid \t salary");
            while(rs.next())
            {
                System.out.print(rs.getString(1) + "\t");
                System.out.print(rs.getInt(2) + "\t");
                System.out.print(rs.getInt(3));
            }
        }
        catch(Exception e)
        {
        }
    }
}
```

Q20) Create a student database(sname,rollno,marks) write a program to update marks of student with rollno=2. in database createStatement.

```
package peprograms;
import java.sql.*;
public class PEPrograms {
    public static void main(String[] args){
        try
        {
            Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
            Connection con =
DriverManager.getConnection("jdbc:odbc:kvrp");
            Statement st = con.createStatement();
            int i = st.executeUpdate("Update table1 Set
marks=100 where rollno=2");
            System.out.println("No of rows updated: " + i);
            ResultSet rs = st.executeQuery("Select * from
table1");

            System.out.println("sname \t rollno \t marks");
            while(rs.next())
            {
                System.out.print(rs.getString(1) + "\t");
```

```

        System.out.print(rs.getInt(2) + "\t");
        System.out.print(rs.getInt(3));
    }
}
catch(Exception e)
{
}
}
}

```

Q21) Create a student database(sname,rollno,marks) write a program to display records in database prepareStatement.

```

package pprograms;
import java.sql.*;
public class PEPrograms {
    public static void main(String[] args){
        try
        {
            Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
            Connection con =
DriverManager.getConnection("jdbc:odbc:kvrp");
            PreparedStatement ps =
con.prepareStatement("Select * from table1");
            ResultSet rs = ps.executeQuery();
            System.out.println("sname \t rollno \t marks");
            while(rs.next())
            {
                System.out.print(rs.getString(1) + "\t");
                System.out.print(rs.getInt(2) + "\t");
                System.out.print(rs.getInt(3));
            }
        }
        catch(Exception e)
        {
        }
    }
}

```

Q22) Write a Servlet to display the user name and password.

HTML FILE

```

<!DOCTYPE html>
<!--
To change this license header, choose License Headers in
Project Properties.
To change this template file, choose Tools | Templates
and open the template in the editor.
-->
<html>
    <head>
        <title>TODO supply a title</title>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width,
initial-scale=1.0">

```

```

</head>
<body>
    <form action="PEPrograms" method="Post">
        <input type="text" id="username"><!-- comment -->
        <input type="password" id="password">
        <input type="submit" value="Login">
    </form>
</body>
</html>

```

SERVLET FILE

```

import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

/**
 *
 * @author deepk
 */
public class NewServlet extends HttpServlet {

    /**
     * Processes requests for both HTTP <code>GET</code> and
     <code>POST</code>
     * methods.
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error
     occurs
     * @throws IOException if an I/O error occurs
     */
    protected void processRequest(HttpServletRequest request,
        HttpServletResponse response)
        throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        try (PrintWriter out = response.getWriter()) {
            /* TODO output your page here. You may use
            following sample code. */
            out.println("<!DOCTYPE html>");
            out.println("<html>");
            out.println("<head>");
            out.println("<title>Servlet NewServlet</title>");
            out.println("</head>");
            out.println("<body>");

            if(request.getParameter("username").equals("parth") &&
                request.getParameter("password").equals("parth123"))
                out.println("Successful Login!");

```

```

        else
            out.println("Login unsuccessful!");
        out.println("</body>");
        out.println("</html>");
    }
}

```

Q23) Write a Servlet to display session ID .

```

import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.vax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpSession;
public class NewServlet extends HttpServlet
{
    protected void processRequest(HttpServletRequest request,
        HttpServletResponse response)
        throws ServletException, IOException
    {
        response.setContentType("text/html;charset=UTF-8");
        try (PrintWriter out = response.getWriter())
        {
            out.println("<!DOCTYPE html>");
            out.println("<html>");
            out.println("<head>");
            out.println("<title>Servlet NewServlet</title>");
            out.println("</head>");
            out.println("<body>");
            HttpSession session=request.getSession();
            String id=session.getId();
            out.println("ID is"+""+id);
            out.println("</body>");
            out.println("</html>");
        }
    }
}

```

Q24) Write a Servlet for demonstrating the concept of Cookie.

JAVA FILE:

```

import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.Cookie;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class cookie_demo extends HttpServlet {
    protected void doPost(HttpServletRequest request,
        HttpServletResponse response)

```

```

throws ServletException, IOException {
    PrintWriter o=response.getWriter();
    String n=request.getParameter("first");
    String v=request.getParameter("second");
    Cookie c=new Cookie(n,v);
    c.setMaxAge(6000);
    response.addCookie(c);
    o.println("<h2>Cookie Created Successfully</h2>");
    o.close();
}
}

```

HTML FILE:

```

<html>
<head>
<title>TODO supply a title</title>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-
scale=1.0">
</head>
<body>
<h1>COOKIE DEMONSTRATION</h1>
<form action="cookie_demo" method="post">
Enter Name : <input type="text" name="first"/><br><br>
Enter RollNo : <input type="text" name="second"/><br><br>
<input type="submit" value="Create Cookie" />
</form>
</body>
</html>

```

Q25) Write a Program to display “welcome to MSBTE” message in browser Window.

```

import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class NewServlet extends HttpServlet
{
    protected void doGet(HttpServletRequest request,
HttpServletResponse response)
        throws ServletException, IOException
    {
        response.setContentType("text/html;charset=UTF-8");
        try (PrintWriter out = response.getWriter())
        {
            out.println("<!DOCTYPE html>");
            out.println("<html>");
            out.println("<head>");
            out.println("<title>Hello MSBTE!</title>");
            out.println("</head>");
            out.println("<body>");

```

```
        out.println("<h1>Welcome at Maharashtra State  
Board Of Technical Education !</h1>");  
        out.println("</body>");  
        out.println("</html>");  
    }  
}  
}
```