1. a) Create an XML document (5 students info)
   b) Validate using DTD

```xml
<?xml version="1.0"?>
<!DOCTYPE class [
<!ELEMENT class (student)>
<!ELEMENT student (name,mobno,eid)>
<!ATTLIST student id CDATA #REQUIRED>
<!ELEMENT name (#PCDATA)>
<!ELEMENT mobno (#PCDATA)>
<!ELEMENT eid (#PCDATA)>
]>
<class>
	<student id="1288">
		<name>Akshay</name>
			<mobno>8978937353</mobno>
		<eid>1288@gvpce.ac.in</eid>
	</student>
	<student id="1201">
		<name>Ramu</name>
		<mobno>89183821657</mobno>
		<eid>1201@gvpce.ac.in</eid>
	</student>
	<student id="1202">
		<name>Babu</name>
		<mobno>9318292901</mobno>
		<eid>1202@gvpce.ac.in</eid>
	</student>
</class>
```

2. a)Create an XML document (5 students info)
   b) Validate using XML schema

XML
```xml
<?xml version="1.0"?>
<class
xmlns="http://www.javatpoint.com"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.javatpoint.com    2.xsd">
        <student id="1288">
                <name>Akshay</name>
                        <mobno>8978937353</mobno>
                <eid>1288@gvpce.ac.in</eid>
        </student>
        <student id="1201">
                <name>Ramu</name>
                <mobno>89183821657</mobno>
                <eid>1201@gvpce.ac.in</eid>
        </student>
        <student id="1202">
                <name>Babu</name>
                <mobno>9390838718</mobno>
                <eid>1202@gvpce.ac.in</eid>
        </student>
</class>
```

XSD
```xml
<?xml    version="1.0"    encoding="UTF-8"?>
<xs:schema    xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://www.javatpoint.com" xmlns="http://www.javatpoint.com"
elementFormDefault="qualified">

<xs:element    name="class">
 <xs:complexType>
  <xs:sequence>
   <xs:element    name="student"    type="studenttype"></xs:element>
  </xs:sequence>
 </xs:complexType>
</xs:element>

<xs:complexType    name="studenttype">
 <xs:sequence>
  <xs:element    name="name"    type="xs:string"></xs:element>
  <xs:element    name="id"    type="xs:integer"></xs:element>
  <xs:element    name="eid"    type="xs:string"></xs:element>
  <xs:element    name="mobno"    type="xs:integer"></xs:element>
 </xs:sequence>
</xs:complexType>
</xs:schema>
```

3. a)Create an XML document (5 students info)
   b) Display data in a table using XSL

XML
```xml
<?xml version="1.0"?>
<?xml-stylesheet   type="text/xsl"    href="3.xsl" ?>
<class>
      <student id="1288">
            <name>Akshay</name>
                  <mobno>8978937353</mobno>
            <eid>1288@gvpce.ac.in</eid>
      </student>
      <student id="1201">
            <name>Ramu</name>
            <mobno>89183821657</mobno>
            <eid>1201@gvpce.ac.in</eid>
      </student>
      <student id="1202">
            <name>Babu</name>
            <mobno>9318292901</mobno>
            <eid>1202@gvpce.ac.in</eid>
      </student>
</class>
```

XSL

```xml
<?xml    version="1.0"    encoding="UTF-8"?>
<xsl:stylesheet    version="1.0"    xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:template    match="/">
<html>
   <body>
      <h1    align="center">College</h1>
      <table    border="3"    align="center">
      <tr>
         <th>name</th>
         <th>id</th>
         <th>Mobno</th>
         <th>Email</th>
    </tr>
    <xsl:for-each    select="college/teaching">
    <tr>
         <td><xsl:value-of    select="name"/></td>
         <td><xsl:value-of    select="id"/></td>
         <td><xsl:value-of    select="mobno"/></td>
         <td><xsl:value-of    select="eid"/></td>
    </tr>
    </xsl:for-each>
    </table>
   </body>
</html>
</xsl:template>
</xsl:stylesheet>
```

4.JDBC program to insert data into table by accepting i/p from the keyboard(student table->Rollno,Name,MobNo).

```
import java.sql.*;
import java.util.Scanner;
class JDBCInsertDemo
{
  public static void main(String ar[]) throws Exception
    {
        Class.forName("oracle.jdbc.driver.OracleDriver");
        Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","tiger");
        Statement st=con.createStatement();
        Scanner s=new Scanner(System.in);
        System.out.println("Enter your details");
        int rno=s.nextInt();
        String name=s.next();
        int mobno=s.nextInt();
        String query="insert into student values("+rno+",'"+name+"',"+mobno+")";
        int n=st.executeUpdate(query);
        if(n>0){
          System.out.println("1 row inserted");
        }
        else{
          System.out.println("Unsucessful");
        }
        st.close();
        con.close();
        sc.close();
    }
}
```

5.JDBC program to display the data of Students table in console.

```
import java.sql.*;
class JdbcDemo
{
    public static void main(String ar[]) throws Exception
    {
        Class.forName("oracle.jdbc.driver.OracleDriver");
        Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","tiger");
        Statement st=con.createStatement();
        String query="select * from student";
        ResultSet rs=st.executeQuery(query);
        while(rs.next())
        {
            System.out.print(rs.getString(1)+"       "+rs.getString(2)+"       "+rs.getString(3));
            System.out.println();
        }
    }
}
```

6. JDBC program to update a students mobileno when rollno is given using preparedStatement.

```
import java.sql.*;
class PreparedStatementDemo
{
    public static void main(String ar[]) throws Exception
    {
        Class.forName("oracle.jdbc.driver.OracleDriver");
        Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","1288");
        PreparedStatement    ps1=con.prepareStatement("update student set mobno=? where
rno=?");
        ps1.setString(1,987654321);
        ps1.setInt(2,1202);
        ps1.executeUpdate();
        ps1.close();
        con.close();
    }
}
```

7. JDBC program to display the mobileno of a student when his rollno is   given using CallableStatement.(rollno->i/p,mobileno->o/p)

```
import java.sql.*;
import java.util.*;
class test
{
        public static void main(String ar[]) throws Exception
        {
                Class.forName("oracle.jdbc.driver.OracleDriver");
            Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","tiger");
                Scanner sc=new Scanner(System.in);
                System.out.print("Enter Rollnumber:");
                int r=sc.nextInt();
                CallableStatement cs=con.prepareCall("{call data(?,?)}");
                cs.setInt(1,r);
                cs.registerOutParameter(2,Types.INTEGER);
                cs.execute();
                System.out.print("Mobile Number is ");
                System.out.println(cs.getInt(2));
                sc.close();
        }
}

// Data Procedure Creation:

//    1    create or replace procedure data(rno in number,mobno out number)
//    2    is
//    3    begin
//    4    select mobileno into mobno from student1 where rollno=rno;
//    5    commit;
//    6    end;
//    7    /
```

8.To check authenticity of user using Servlet or jsp for login table.
```
<!DOCTYPE html>
<html>
<head>
<title> Login Form </title>
</head>
<body>
<form name="rf" action="9.jsp" method="post">
<p><label for="uname">Username: </label>
    <input type="text" name="uname" id="uname" size="20"/>
</p>
<p><label for="passwd">Password: </label>
    <input type="password" name="passwd" id="passwd" size="20"/>
</p>

<p>
    <input type="submit" value="Signin">
</p>
</form>
</body>
</html>
```

JSP
```
<html>
<body>
<%@ page import="java.sql.*"%>
<%! int n=5;%>
<%=n %>
<%
   String username=request.getParameter("uname");
   String password=request.getParameter("passwd");
   out.println("Username:"+username);
   out.println("Password:"+password);
   Class.forName("oracle.jdbc.driver.OracleDriver");
   out.println("Driver Loaded");
   Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","1288");
   out.println("Connected to Database");
   String query="select * from logincheck where username=? and password=?";
    PreparedStatement ps=con.prepareStatement(query);
    ps.setString(1,username);
    ps.setString(2,password);
    ResultSet rs=ps.executeQuery();
    if(rs.next()) out.println("Valid user");
    else    %>
   <%= "Invalid user" %>


</body>
</html>
```

9. To insert details of Student using Servlet or jsp   (Registration->Rollno,Name,Mobno)

```html
<!DOCTYPE html>
<html>
<head>
<title> Registration Form </title>
</head>
<body>
<form name="rf" action="insert.jsp" method="post">
<p><label>RollNo: </label>
    <input type="text" name="rollno" size="20"/>
</p>
<p><label>Name: </label>
    <input type="text" name="uname" size="20"/>
</p>
<p><label>MobileNo: </label>
    <input type="text" name="mobno" size="20"/>
</p>

<p>
    <input type="submit" value="Register">
</p>
</form>

</body>
</html>
```

JSP
```jsp
<html>
   <body>
     <%@ page import="java.sql.*" %>
     <%
     Class.forName("oracle.jdbc.driver.OracleDriver");
     Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","1288");
     String rollno=request.getParameter("rollno");
     String username=request.getParameter("uname");
     String mobileno=request.getParameter("mobno");
     String query="insert into student1 values('"+rollno+"','"+username+"','"+mobileno+"')";
     Statement st=con.createStatement();
     int n=st.executeUpdate(query);
     if(n>0){
          out.println("Data Inserted");
     }
     else{
          out.println("Data Not inserted");
     }
%>
   </body>
</html>
```