# RNS INSTITUTE OF TECHNOLOGY

**Dr. VISHNUVARDHAN ROAD, CHANNASANDRA, BENGALURU - 560 098**


# Department of Information Science & Engineering

# WEB PROGRAMMING LABORATORY MANUAL

## IV Semester

**21CSL481**

**Faculty-in-charge**

**Ms. Kavitha B**

# RNS INSTITUTE OF TECHNOLOGY

**Dr. VISHNUVARDHAN ROAD, CHANNASANDRA, BENGALURU -560 098**

# Department of Information Science and Engineering

**VISION of the College**

Building RNSIT into a World - Class Institution

**MISSION of the College**

**To impart high quality education** in Engineering, Technology and Management with a difference, enabling students to excel in their career by

1. Attracting quality Students and preparing them with a strong foundation in fundamentals so as *to achieve distinctions in various walks of life* leading to outstanding contributions.
2. Imparting value based, need based, and choice based and skill based professional education to the aspiring youth and *carving them into disciplined, World class Professionals* with *social responsibility.*
3. Promoting excellence in Teaching, Research and Consultancy that galvanizes academic consciousness among Faculty and Students.
4. Exposing Students to emerging frontiers of knowledge in various domains and make them suitable for Industry, Entrepreneurship, Higher studies, and Research & Development.
5. Providing freedom of action and choice for all the Stake holders with better visibility.

**VISION of the Department**

Building Information Technology Professionals by Imparting Quality Education and Inculcating Key Competencies

**MISSION of the Department**

1. Provide strong fundamentals through learner centric approach.

2. Instill technical, interpersonal, interdisciplinary skills and logical thinking for holistic development.

3. Train to excel in higher education, research, and innovation with global perspective.

4. Develop leadership and entrepreneurship qualities with societal responsibilities.

## PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

**ISE Graduates** within three-four years of graduation will have

- **PEO1**: Acquired the fundamentals of computers and applied knowledge of Information Science & Engineering and continue to develop their technical competencies by problem solving using programming.
- **PEO2**: Ability to formulate problems, attained the Proficiency to develop system/application software in a scalable and robust manner with various platforms, tools and frameworks to provide cost effective solutions.
- **PEO3**: Obtained the capacity to investigate the necessities of the software Product, adapt to technological advancement, promote collaboration and interdisciplinary activities, Protecting Environment and developing Comprehensive leadership.
- **PEO4**: Enabled to be employed and provide innovative solutions to real-world problems across different domains.
- **PEO5**: Possessed communication skills, ability to work in teams, professional ethics, social responsibility, entrepreneur and management, to achieve higher career goals, and pursue higher studies.

## PROGRAM OUTCOMES (POs)

**Engineering Graduates** will be able to:

- **PO1: Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization for the solution of complex engineering problems
- **PO2: Problem analysis:** Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
- **PO3: Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and cultural, societal, and environmental considerations.
- **PO4: Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- **PO5: Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities, with an understanding of the limitations.
- **PO6: The engineer and society:** Apply reasoning informed by the contextual

knowledge to assess Societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

- **PO7: Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- **PO8: Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- **PO9: Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- **PO10: Communication:** Communicate effectively on complex engineering activities with the engineering community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- **PO11: Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- **PO12: Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

## PROGRAM SPECIFIC OUTCOMES (PSOs)

**ISE Graduates** will have

- **PSO1 – Problem Solving Abilities:** Ability to demonstrate the fundamental and theoretical concepts, analyze the real time problems and develop customized software solutions by applying the knowledge of mathematics and algorithmic techniques.
- **PSO2 – Applied Engineering Skills:** Enable creative thinking, Ability to apply standard practices and strategies, technical skills in software design, development, integration of systems and management for improving the security, reliability and survivability of the infrastructure.
- **PSO3 – General Expertise and Higher Learning:** Ability to exchange knowledge effectively demonstrate the ability of team work, documentation skills, professional ethics, entrepreneurial skills and continuing higher education in the field of Information technology.

# RNS INSTITUTE OF TECHNOLOGY

(AICTE Approved, VTU Affiliated and NAAC 'A+ Grade' Accredited)
(UG programs – CSE, ECE, ISE, EIE and EEE have been Accredited by NBA up to 30/6/2025)
Channasandra, Dr. Vishnuvardhan Road, Bengaluru - 560 098

## Department of Computer Science and Engineering

| | | | |
|---|---|---|---|
| **SUBJECT TITLE** | **Web Programming** | | |
| **SUBJECT CODE** | **21CSL481** | | |
| **ACADEMIC YEAR** | **2022-23** | **BATCH** | **2021-25** |
| **SEMESTER & SECTION** | **4th Sem** | | |
| **IA MARKS** | **50** | **EXAM MARKS** | **50** |
| **NUMBER OF LECTURE HOURs/WEEK** | **1** | **TOTAL NUMBER OF LECTURE HOURS** | |
| **FACULTY NAME** | **MS. KAVITHA B** | **NO. OF TIMES HANDLED** | **1** |

**COURSE LEARNING OBJECTIVES:** This course will enable students to

1. Learn Web tool box and history of web browsers
2. Learn HTML, XHTML tags with utilizations
3. Know CSS with dynamic document utilizations
4. Learn javascript with element access in javascript
5. Logically plan and develop web pages

**Course Outcomes:** At the end of this course, students are able to:

| | |
|---|---|
| CO1 | Describe the fundamentals of web and concept of HTML. |
| CO2 | Use the concepts of HTML, XHTML to construct the web pages. |
| CO3 | Interpret CSS for dynamic documents. |
| CO4 | Evaluate different concepts of JavaScript & Construct dynamic documents. |
| CO5 | Design a small project with JavaScript and XHTML. |

# CO-PO MATRIX

| COURSE OUTCOM | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO12 | PSO 1 | PSO 2 | PSO 3 | PSO 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | 3 | 3 | 3 | 3 | 3 | 2 | | | 2 | | | 2 | 3 | | 3 | |
| **CO2** | 3 | 3 | 3 | 3 | 3 | 2 | | | 2 | | | 2 | 3 | | 3 | |
| **CO3** | 3 | 3 | 3 | 3 | 3 | 2 | | | 2 | | | 2 | 3 | 3 | 3 | |
| **CO4** | 3 | 3 | 3 | 2 | 3 | 2 | | | 2 | | | 2 | 3 | 2 | 3 | |
| **CO5** | 3 | 3 | 3 | 3 | 3 | 2 | | | 2 | | | 2 | 3 | 2 | 3 | |
| **CO6** | 3 | 3 | 3 | 3 | 3 | 2 | | | 2 | | | 2 | 3 | 2 | 2 | |

# DELIVERY PLAN WITH DETAILS

| SL No. | Lab Program Details | Date of Delivery |
|---|---|---|
| **1** | Sample Programs on Web Programming | |
| **2** | 1.Write a program using HTML to design your class Time Table | |
| **3** | 2. Write a Program to print registration form using all form elements of html | |
| 4 | 3. Write a program Using Html and Css to Create the Following Content<br>(OR)<br>Write a Program Using HTML and CSS To create the header page with navbar following the instructions given below<br>Instructions:<br>1. The font color of the first content to be green and the picture should be towards right<br>2. The font color of the second content to be brown and the picture should be left<br>3. Use referential values for padding between image and text and also top and bottom margin<br>4. Use font Times De Roman For the texts | |
| 5 | 4. Write a Program using Html and Css to get the Below Output , following the given instructions<br>Instructions:<br>1. body margin should be 0<br>2.Space between each picture should be 10px<br>3.Give borders for the pictures with suitable radius<br>4. header shout be of 50px and aligned center<br>5. Use font Times De Roman For the texts | |
| 6 | 5. Develop and demonstrate a XHTML document that illustrates the use external style sheet, ordered list, table, borders, padding, color, and the tag | |
| | INTERNAL ASSESMENT-1 | |
| 7 | 6A.Write a JavaScript to design an HTML page that contains a selection box with a list of 5 countries. When the user selects a country, its capital should be printed next in the list. Add CSS to customize the properties of the font of the capital (color, bold and font size).<br><br>6B. Write a JavaScript program to find out the Fibonacci Series. | |

| | | |
|---|---|---|
| 8 | 7A. Develop and demonstrate a HTML5 file that includes JavaScript script that uses functions for the following problems:<br>a) Parameter: A string<br>b) Output: The position in the string of the left-most vowel<br>c) Parameter: A number<br>d) Output: The number with its digits in the reverse order<br><br>7B. Write a JavaScript to design a simple calculator to perform the following operations: sum, product, difference and quotient. | |
| 9. | 8A. Write a JavaScript that calculates the squares and cubes of the numbers from 0 to 10 and outputs HTML text that displays the resulting values in an HTML table format.<br><br>8B. Write a JavaScript code that displays text "TEXT-GROWING" with increasing font size in the interval of 100ms in RED COLOR, when the font size reaches 50pt it displays "TEXTSHRINKING" in BLUE color. Then the font size decreases to 5pt. | |
| 10. | 9A. Develop and demonstrate JavaScript with POP-UP boxes and functions<br>for the following problem:<br>Input: Click on Display Date button using onclick( ) function Output: Display date in the<br><br>9B. Input: A number n obtained using prompt Output: A multiplication table<br>of numbers from 1 to 10 of n using alert. | |
| 12 | 10. Develop and demonstrate, using JavaScript script, a XHTML document that collects the USN ( the valid format is: A digit from 1 to 4 followed by two upper-case characters followed by two digits followed by two upper-case characters followed by three digits; no embedded spaces allowed) of the user. Event handler must be included for the form element that collects this information to validate the input. Messages in the alert windows must be produced when errors are detect. | |
| 13 | **Internal assessment2** | |

**Faculty** **Course coordinator** **HOD**

**INTRODUCTION TO WEB PROGRAMMING LABORATORY (BPLCK205A)**

## *INTERNAL EVALUATION SHEET*

| *EVALUATION (MAX MARKS 50)* | | | |
|---|---|---|---|
| **TEST A** | **REGULAR EVALUATION B** | **RECORD C** | **TOTAL MARKS A+B+C** |
| **20** | **20** | **10** | **50** |

| *R1: REGULAR LAB EVALUATION WRITE UP RUBRIC (MAX MARKS 10)* | | | | |
|---|---|---|---|---|
| **Sl. No.** | **Parameters** | **Good** | **Average** | **Needs improvement** |
| **a.** | **Understanding of problem (3 marks)** | Clear understanding of problem statement while designing and implementing the program (3) | Problem statement is understood clearly but few mistakes while designing and implementing program (2) | Problem statement is not clearly understood while designing the program (1) |
| **b.** | **Writing program (4 marks)** | Program handles all possible conditions (4) | Average condition is defined and verified. (3) | Program does not handle possible conditions (1) |
| **c.** | **Result and documentation (3 marks)** | Meticulousdocumentation and all conditions are taken care (3) | Acceptable documentation shown (2) | Documentation does not take care all conditions (1) |

| *R2: REGULAR LAB EVALUATION VIVA RUBRIC (MAX MARKS 20)* | | | | | |
|---|---|---|---|---|---|
| **Sl. No.** | **Parameter** | **Excellent** | **Good** | **Average** | **Needs Improvement** |
| **a.** | **Conceptual understanding (10 marks)** | Answers 80% of the viva questions asked (10) | Answers 60% of the viva questions asked (7) | Answers 30% of the viva questions asked (4) | Unable to relate the concepts (1) |

| *R3: REGULAR LAB PROGRAM EXECUTION RUBRIC (MAX MARKS 10)* | | | | |
|---|---|---|---|---|
| **Sl. No.** | **Parameters** | **Excellent** | **Good** | **Needs Improvement** |
| **a.** | **Design, implementation, and demonstration (5 marks)** | Program follows syntax and semantics of C programming language. Demonstrates the complete knowledge of the program written (5) | Program has few logical errors, moderately demonstrates all possible concepts implemented in programs (3) | Syntax and semantics of C programming is not clear (1) |
| **b.** | **Resultand documentation (5 marks)** | All test cases are successful, all errors are debugged with own practical knowledge and clear documentation according to the guidelines (5) | Moderately debugs the programs , few test case are unsuccessful and Partial documentation (3) | Test cases are not taken care , unable to debug the errors and no proper documentation (1) |

| *R4: RECORD EVALUATION RUBRIC (MAX MARKS 10)* | | | | | |
|---|---|---|---|---|---|
| **Sl. No.** | **Parameter** | **Excellent** | **Good** | **Average** | **Needs Improvement** |
| **a.** | **Documentation (10 marks)** | Meticulous record writing including program, comments and as per the guidelines mentioned (10) | Write up contains program, but comments are not included (8) | Write up contains only program (5) | Program written with few mistakes (2) |

**PROGRAM1: Write a program using HTML to design your class Time Table**

```
<!DOCTYPE html>
<html >
<head>
   <title>Time Table</title>
</head>
<body>
   <B><center><h3>RNS INSTITUTE OF TECHNOLOGY<br>DEPARTMENT OF
INFORMATION SCIENCE AND ENGINEERING<br>EFFECTIVE FROM:
01.07.23<br></center></b></h3>
   <table border="2" width="75%" cellspacing="2" cellpadding="25"align=center>
      <h3><caption align=left>Class: III C    
              
              
              
               

             &
nbsp;            &n
bsp;       
               
               
             
      R.No:103</caption>
      </h3><thead>
      <tr>
         <th >Periods</th>
         <th ROWSPAN=2>1 <br>8.40-9.40</th>
         <th ROWSPAN=2>2<br>9.40-10.40</th>
         <th ROWSPAN=2>3<br>11.00-12.00</th>
         <th ROWSPAN=2>4<br>12.00-13.00</th>
         <th ROWSPAN=2>5<br>13.00-14.00</th>
         <th ROWSPAN=2>6<br>14.00-15.00</th>
         <th ROWSPAN=2>7<br>15.00-16.00</th>
      </tr>
      <tr>
         <th> Days</th></thead><tbody>
      <tr>
         <th>Monday</th>
         <td>Maths</td>
         <td>MCES</td>
         <td bgcolor = "yellow">AEC</td>
         <td>OS</td>
         <td COLSPAN=3><center>*</center></td>
      </tr>
      <tr>
```

```
        <th>TuesDay</th>
        <td>MCES</td>
        <td>OS</td>
        <td>DAA</td>
        <td>Maths</td>
        <td bgcolor = "grey" COLSPAN=2><center>DAA/MCES Lab</center></td>
        <td>*</td>
      </tr>
      <tr>
      <th>Wednesday</th>
        <td COLSPAN =2 bgcolor="grey"><center>MCES/Python Lab</center></td>
        <td>DAA</td>
        <td>MCES</td>
        <td bgcolor="yellow">AEC</td>
        <td bgcolor="yellow">UHV</td>
        <td>Bio</td>
      </tr>
      <tr>
        <th>Thursday</th>
        <td>MCES</td>
        <td>Maths</td>
        <td COLSPAN=2 bgcolor = "grey"><center>Python/DAA Lab</center></td>
        <td COLSPAN=3 bgcolor="cyan"><center>Center of Excellence(13.40-17.30)</td>
      </tr>
      <tr>
        <th>Friday</th>
        <td>OS</td>
        <td>Maths</td>
        <td>Bio</td>
        <td>DAA</td>
        <td>DAA</td>
        <td bgcolor = "yellow">CIP</td>
      </tr>
      <tr>
        <th>Saturday</th>
        <td>DAA</td>
        <td>OS</td>
        <td>MCES</td>
        <td>Maths</td>
        <td colspan=3><center>*</center></td>
      </tr>
      </body>
   </table>
</body>
</html>
```

## EXPECTED OUTPUT:

**RNS INSTITUTE OF TECHNOLOGY**
**DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING**
**EFFECTIVE FROM: 01.07.23**

Class: III C R No:103

| Periods / Days | 1 8.40-9.40 | 2 9.40-10.40 | 3 10.40-11.00 | 3 11.00-12.00 | 4 12.00-13.00 | 5 13.00-13.40 | 6 13.40-14.40 | 7 14.40-15.40 | 7 15.40-16.40 |
|---|---|---|---|---|---|---|---|---|---|
| Monday | Maths | MCES | B | AEC | OS | B | * | | |
| TuesDay | MCES | OS | B | DAA | Maths | B | DAA/MCES Lab | | * |
| Wednesday | MCES/Python Lab | | E | DAA | MCES | E | AEC | UHV | Bio |
| Thursday | MCES | Maths | A | Python/DAA Lab | | A | Center of Excellence(13.40-17.30) | | |
| Friday | OS | Maths | K | Bio | DAA | K | DAA | CIP | |
| Saturday | DAA | OS | | MCES | Maths | | * | | |

**PROGRAM2: Write a Program to print registration form using all form elements of html**

```
<html>
<head>
<title>Basic Form : HTML Form Lab Assignment for Form Creation</title>
</head>
<body>
<form>
<table align="center" width="60%" cellpadding="5px" border="1">
<tr>
<th colspan="4"><h2>Registration Form</h2></th>
</tr>
<tr>
<td width="25%"><label for="t1">Student Name</label></td>
<td width="25%">
<input id="t1" type="text" placeholder="First Name" required>
</td>
<td width="25%">
<input id="t2" type="text" placeholder="Middle Name">
</td>
<td width="25%">
<input id="t3" type="text" placeholder="Last Name" required>
</td>
</tr>
<tr><td><label for="t2">Father's Name</label></td>
<td><input id="t2" type="text" placeholder="Enter your father's Name"></td>
<td><label for="t3">Mother's Name</label></td>
<td><input id="t3" type="text" placeholder="Enter your Mother's Name" required></td>
</tr>
<tr>
<td><label for="t4">Date of Birth</label></td>
<td><input id="t4" type="date" required></td>

<td><label>Gender</label></td>
<td>
<label for="r1">Male</label><input id="r1" type="radio" name="gender">
<label for="r2">Female</label><input id="r2" type="radio" name="gender">
</td>
</tr>
<tr>
<td><label for="t4">Category</label></td>
<td>
<label>Gen</label><input type="radio" name="cat">
<label>OBC</label><input type="radio" name="cat">
<label>SC/ST</label><input type="radio" name="cat">
</td>
```

```
<td><label> Handicapped </label></td>
<td>
<label>Yes</label><input type="radio" name="hand">
<label>No</label><input  type="radio" name="hand" >
</td>
</tr>
<tr>
<td><label for="t4">Ex-Serviceman</label></td>
<td>
<label>Yes</label><input type="radio" name="ser">
<label>NO</label><input type="radio" name="ser">

</td>

<td><label> EWS  </label></td>
<td>
<label>Yes</label><input type="radio" name="ews">
<label>No</label><input  type="radio" name="ews">
</td>
</tr>
<tr>
<td><label for="t5">Email ID</label></td>
<td><input id="t5" type="email"></td>
<td><label for="t6">Mobile No.</label></td>
<td><input id="t6" type="text" maxlength="10"></td>
</tr>

<tr>
<td><label>State</label></td>
<td>
<select>
<option>Select any One</option>
<option>Karnataka</option>
<option>Delhi</option>
</select>
</td>
<td><label>City</label></td>
<td>
<select>
<option>Select any One</option>
<option>Bangalore</option>
<option>Mysore</option>
<option>Hubli</option>
</select>
</td>
</tr>
```

```
<tr>
<td>Upload Photo</td>
<td><input type="file"/></td>
<td>Upload Signature</td>
<td><input type="file"/></td>
</tr>
<tr>
<td></td>
<td>
      <input type = "submit"  value = "Submit Order" />
  </td>
<td></td>
<td>     <input type = "reset"  value = "Clear Order Form" />
    </td>
</tr>
</table>
</form>
</body>
</html>
```

**EXPECTED OUTPUT:**

**Registration Form**

| | | | |
|---|---|---|---|
| Student Name | First Name | Middle Name | Last Name |
| Father's Name | Enter your father's Name | Mother's Name | Enter your Mother's Name |
| Date of Birth | mm/dd/yyyy | Gender | Male ○ Female ○ |
| Category | Gen ○ OBC ○ SC/ST ○ | Handicapped | Yes ○ No ○ |
| Ex-Serviceman | Yes ○ NO ○ | EWS | Yes ○ No ○ |
| Email ID | | Mobile No. | |
| State | Select any One | City | Select any One |
| Upload Photo | Choose File No file chosen | Upload Signature | Choose File No file chosen |
| | Submit Order | | Clear Order Form |

**3. Program3**: **Write a program Using Html and Css to Create the Following Content**

**(OR)**

**Write a Program Using HTML and CSS To create the header page with navbar following the instructions given below**

**Instructions:**

**1. The font color of the first content to be green and the picture should be towards right**

**2. The font color of the second content to be brown and the picture should be left**

**3. Use referential values for padding between image and text and also top and bottom margin**

**4. Use font Times De Roman For the texts**

```
<!DOCTYPE html>
<html>
<head>
  <title>Navbar Example</title>
</head>
<body>
  <div class="navbar">
    <ul>
      <li><a href="#">Home</a></li>
      <li><a href="#">About</a></li>
      <li><a href="#">Services</a></li>
      <li><a href="#">Contact</a></li>
    </ul>
  </div>
 <h1>Our Content</h1>
```

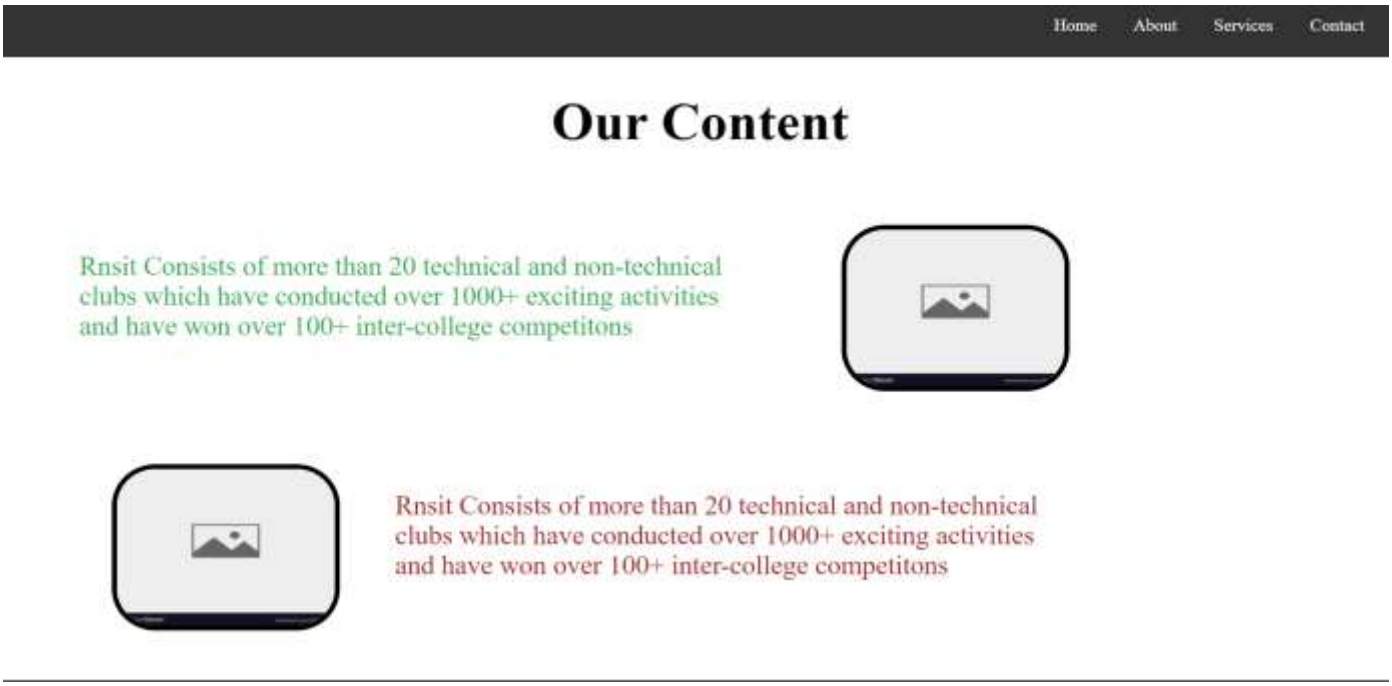
```
<div class="content">
 <div class="con-txt">
 <p>Rnsit Consists of more than 20 technical and
        non-technical clubs which have
       conducted over 1000+ exciting activities
       and have won over 100+ inter-college
       competitons
   </p>
   </div>
   <img src="img1.jpg" alt="">
</div>
<div class="conntent2">
<img src="img1.jpg" alt="">
  <div class="con-txt2">
     <p>Rnsit Consists of more than 20 technical and
        non-technical clubs which have
     conducted over 1000+ exciting activities
     and have won over 100+ inter-college Competions      </p>
    </div>
  </div>
 <style>
       body{
       margin: 0;
   }
   .navbar {
```

```
    background-color: #333;
    padding: 10px;
    text-align: center;
    height: 30px;
  }
  .navbar ul {
    list-style-type: none;
    margin: 0;
    padding: 0;
    float: right;
  }
  .navbar li {
    display: inline-block;
    margin-right: 10px;
  }
 .navbar li a {
    color: #fff;
    text-decoration: none;
    padding: 5px 10px;
  }
  h1{
      text-align: center;
      font-size: 50px;
  }
.content{
```

```
    display: flex;
    margin-left: 70px;
    margin-top: 70px;
    margin-bottom: 70px;
}
.con-txt{
    font-size: 25px;
    justify-content: center;
}
.con-txt p{
    width: 600px;
    height: auto;
    color: rgb(52, 175, 81);
}
 img{
    margin-left: 100px;
    width: 200px;
    height: 150px;
    border-radius: 40px;
    border: solid 5px black;
}
.content2{
    display: flex;
    margin-left: 70px;
}
```

```
.con-txt2{
    font-size: 25px;
    justify-content: center;
    float: right;
    margin-right: 25%;
    color: brown;
}
.con-txt2 p{
    width: 600px;
    height: auto;
}
 </style>
</body>
</html>
```

# EXPECTED OUTPUT:



# Program4: Write a Program using Html and CSS to get the Below Output , following the given instructions

**Instructions: 1. body margin should be 0**

**2. Space between each picture should be 10px**

**3. Give borders for the pictures with suitable radius**

**4. header shout be of 50px and aligned center**

**5. Use font Times De Roman For the texts**

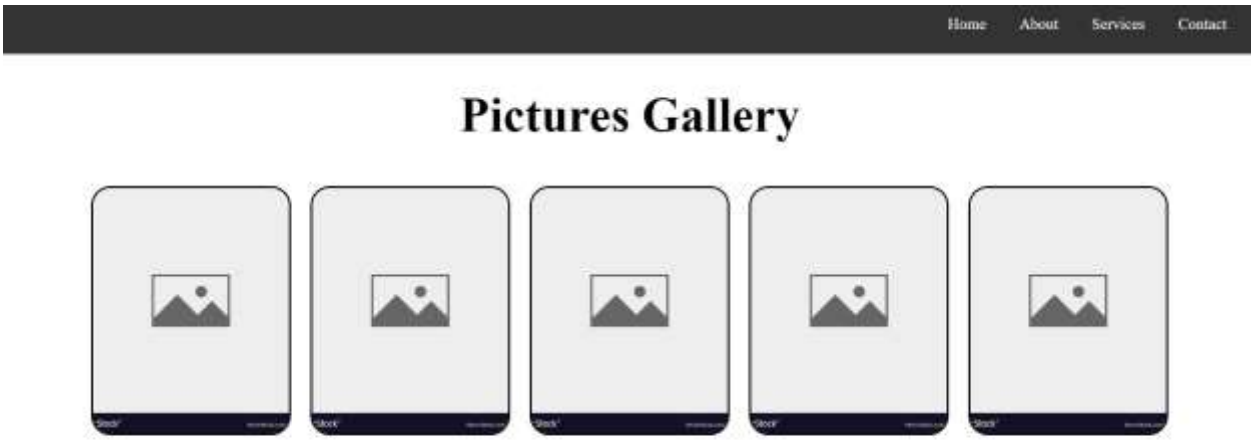
```
<!DOCTYPE html>
<html>
<head>
  <title>Navbar Example</title>
  <style>
    /* Navbar styles */
    body{
        margin: 0;
    }
    .navbar {
      background-color: #333;
      padding: 10px;
      text-align: center;
      height: 30px;
    }

    .navbar ul {
      list-style-type: none;
```

```
    margin: 0;
    padding: 0;
    float: right;

  }
  .navbar li {
    display: inline-block;
    margin-right: 10px;
  }
  .navbar li a {
    color: #fff;
    text-decoration: none;
    padding: 5px 10px;
  }
  .gallery {
    display: flex;
    flex-wrap: wrap;
    justify-content: center;
    margin-top: 10px;
  }
  .gallery img {
      border: solid 2px black;
       border-radius: 20px;
    width: 200px;
    height: 250px;
    margin: 10px;
```

```
    margin-top: 10px;
    object-fit: cover;
  }

  h1{
    text-align: center;
    font-size: 50px;
  }

 </style>
</head>
<body>
 <div class="navbar">
  <ul>
   <li><a href="#">Home</a></li>
   <li><a href="#">About</a></li>
   <li><a href="#">Services</a></li>
   <li><a href="#">Contact</a></li>
  </ul>
 </div>

 <h1>Pictures Gallery</h1>
 <div class="gallery">
  <img src="image1.jpg" alt="Image 1">
  <img src="image2.jpg" alt="Image 2">
  <img src="image3.jpg" alt="Image 3">
```

```
    <img src="image4.jpg" alt="Image 4">
    <img src="image5.jpg" alt="Image 5">
  </div>
</body>
</html>
```

**EXPECTED OUTPUT:**



## PROGRAM5: Develop and demonstrate a XHTML document that illustrates the use external style sheet, ordered list, table, borders, padding, color, and the tag

### LAB5.css

```
p,table,li,{
font-family: "lucida calligraphy", arial, 'sans serif';
margin-left: 10pt;
}
p { word-spacing: 5px; }
body { background-color:rgb(200,255,205); }
p,li,td { font-size: 75%;}
td { padding: 0.5cm; }
th {
text-align:center;
font-size: 85%;
}
h1, h2, h3, hr {color:#483d8b;}
table
{
border-style: outset;
background-color: rgb(100,255,105);
}
li {list-style-type: lower-roman;}
span
{
```

```
color:blue;
background-color:pink;
font-size: 29pt;
font-style: italic;
font-weight: bold;
}
```

LAB5.html

```
<!DOCTYPE html>
<html>
<head>
<link rel="stylesheet" type="text/css" href="Lab5.css" />
<title> Lab program5 </title>
</head>
<body>
<h1>This header is 36 pt</h1>
<h2>This header is blue</h2>
<p>This paragraph has a left margin of 50 pixels</p>
<table border="4" width="5%"> <!-- table with colour name &code -->
<tr>
<th width="204">Colour Name </th>
<th>Hexadecimal code</th>
</tr>
<tr>
<td width="204">Black</td>
<td>000000</td>
```

```
</tr>
<tr>
<td width="204">Silver</td>
<td>C0C0C0</td>
</tr>
<tr>
<td width="204">Gray</td>
<td>808080</td>
</tr>
<tr>
<td width="204">White</td>
<td>FFFFFF</td>
</tr>
</table>
<hr> <!-- horizontal line -->
<h3>Programming Languages</h3>
<ol> <!-- ordered list -->
<li> C Programming</li>
<li> Object Oriented Programming </li>
<li> Python Programming</li>
</ol>
<hr> <!-- horizontal line -->
<h3>Span Element</h3>
<p>
```

The span tag is an inline tag used to mark up a part of atextor part of document.</p>

</p>

</body>

</html>

**EXPECTED OUTPUT:**

**PROGRAM6A: Write a JavaScript to design an HTML page that contains a selection box with a list of 5 countries. When the user selects a country, its capital should be printed next in the list. Add CSS to customize the properties of the font of the capital (color, bold and font size).**

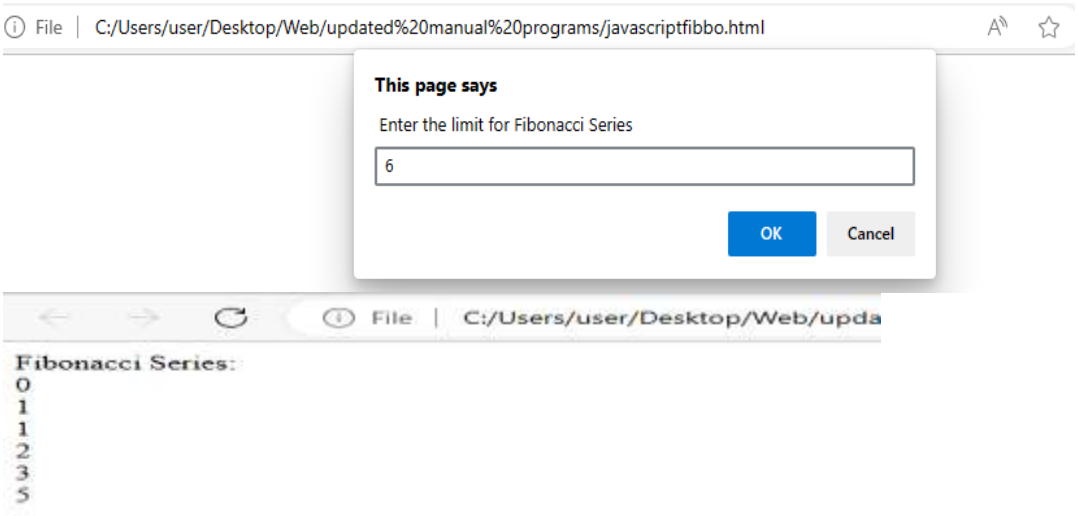
```
<html>
 <head>
 <title>WT Lab manual program no. 3</title>
 </head>
 <style>
h1
{
color: red;
text-align: center;
}
.textbox1
{
color: blue;
font-size: 30px;
font-weight: bold;
}
 </style>
<body>
 <center>
 <h1> Select the country name to find its capital</h1>
 <form name="myform">
 Select Country <select name="country" id="sbox1" onClick="myFunction()" required>
 <option value=""></option>
 <option value="NEW DELHI">INDIA</option>
 <option value="CANBERRA">AUSTRALIA</option>
 <option value="WASHINGTON D.C">AMERICA</option>
 <option value="LONDON">UNITEDKINGDOM</option>
 <option value="BERLIN">GERMANY</option>
 </select><br><br>
 Capital <input type="text" class="textbox1" id="sbox2">
 </form>
 </center>
<script>
function myFunction()
{ var a=document.getElementById("sbox1").value;
 document.getElementById("sbox2").value=a; }
</script>
</body>
 </html>
```

**EXPECTED OUTPUT:**

**6B. Write a JavaScript program to find out the Fibonacci Series.**

```
<html>
<head>
<title> Fibonacci Series in JavaScript </title>
</head>
<body>
<script>
// declaration of the variables
var n1 = 0,  n2 = 1, next_num, i;
var num = parseInt (prompt (" Enter the limit for Fibonacci Series "));
document.write( "Fibonacci Series: ");
for ( i = 1; i <= num; i++)
{  document.write (" <br> " +  n1); // print the n1
   next_num = n1 + n2; // sum of n1 and n2 into the next_num

   n1 = n2; // assign the n2 value into n2
   n2 = next_num; // assign the next_num into n2
}

</script>
</body>
</html>
```

**EXPECTED OUTPUT:**

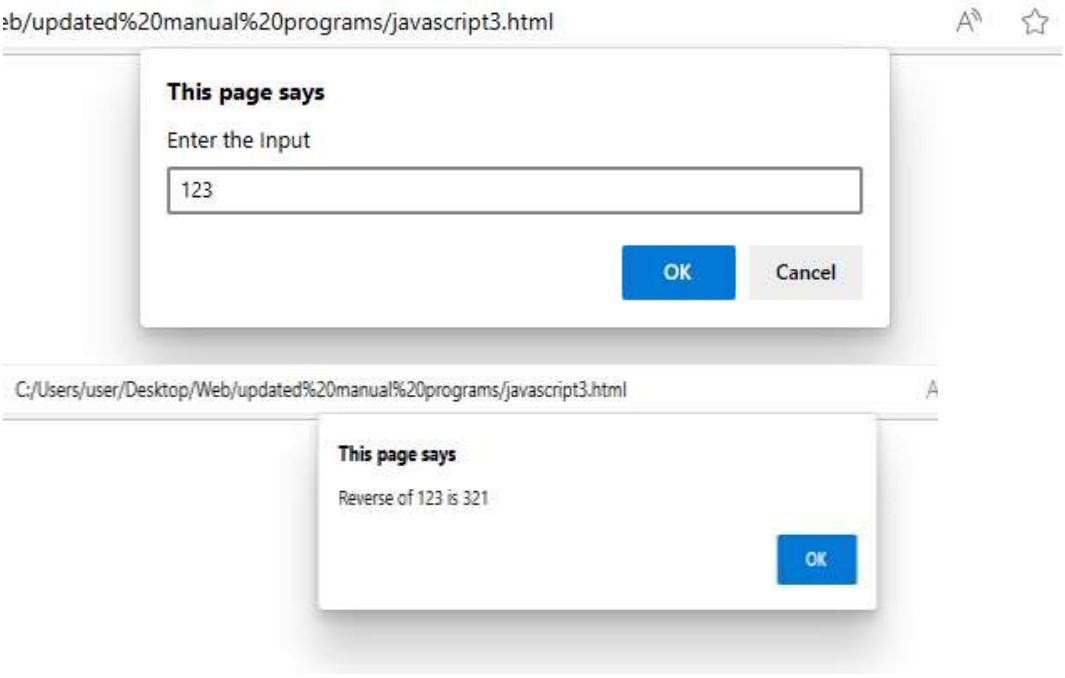


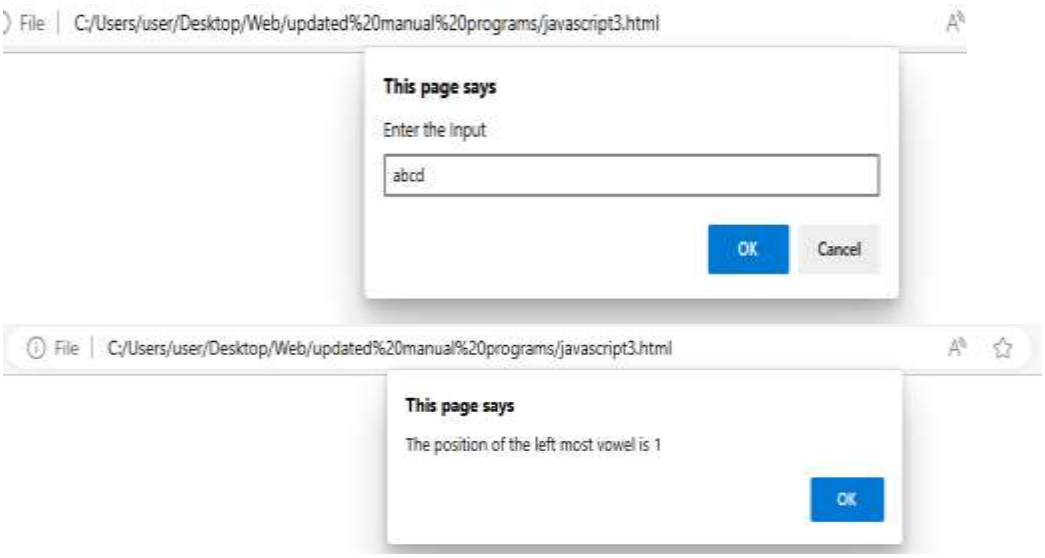

**PROGRAM7A: Develop and demonstrate a HTML5 file that includes JavaScript script that uses functions for the following problems:**
**a) Parameter: A string**
**b) Output: The position in the string of the left-most vowel**
**c) Parameter: A number**
**d) Output: The number with its digits in the reverse order**

```
<!DOCTYPE html>
<html>
<body>
<script type="text/javascript">
var str = prompt("Enter the Input"," ");
 if(!(isNaN(str)))
{
var num,rev=0,remainder;
num = parseInt(str);
while(num!=0)
{
remainder = num%10;
num = parseInt(num/10);
rev = rev * 10 + remainder;
 }

alert("Reverse of "+str+" is "+rev);

}
```

```
else
{
str = str.toUpperCase();
for(var i = 0; i < str.length; i++)
{
var chr = str.charAt(i);
if(chr == 'A' || chr == 'E' || chr == 'I' || chr == 'O' || chr == 'U')break;
}
if( i < str.length )
alert("The position of the left most vowel is "+(i+1));

else
alert("No vowel found in the entered string");


}
</script>
 </body>
</html>
```

**EXPECTED OUTPUT:**

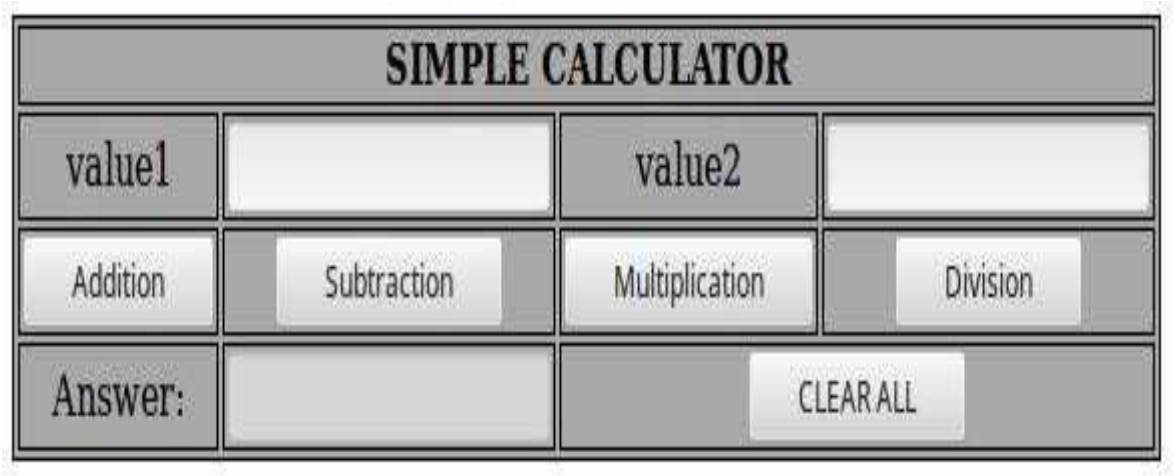



File | C:/Users/user/Desktop/Web/updated%20manual%20programs/javascript3.html
This page says
Enter the Input
abcd
OK
Cancel
File | C:/Users/user/Desktop/Web/updated%20manual%20programs/javascript3.html
This page says
The position of the left most vowel is 1
OK

**PROGRAM7B: Write a JavaScript to design a simple calculator to perform the following operations:sum, product, difference and quotient.**

```
<!DOCTYPE html>
 <html>
<head>
<style>
table, td, th
{
border: 1px solid black; width: 33%;
text-align: center; background-color: DarkGray; border-collapse:collapse;
}
table { margin: auto; } input { text-align:right; }
</style>
<script type="text/javascript"> function calc(clicked_id)
{
var val1 = parseFloat(document.getElementById("value1").value);
 var val2 = parseFloat(document.getElementById("value2").value);
 if(isNaN(val1)||isNaN(val2))
alert("ENTER VALID NUMBER");
else if(clicked_id=="add") document.getElementById("answer").value=val1+val2;
else if(clicked_id=="sub") document.getElementById("answer").value=val1-
val2;
else if(clicked_id=="mul") document.getElementById("answer").value=val1*val2;
else if(clicked_id=="div")
document.getElementById("answer").value=val1/val2;
}
function cls()
{
 value1.value="0";
value2.value="0";
 answer.value="";
 }
</script>
</head>
<body>
<table>
 <tr><th colspan="4"> SIMPLE CALCULATOR </th></tr>
<tr><td>value1</td><td><input type="text" id="value1" value="0"/></td> <td>value2</td><td><input
type="text" id="value2" value="0"/> </td></tr> <tr><td><input type="button" value="Addition" id =
"add" onclick="calc(this.id)"/></td>
<td><input type="button" value="Subtraction" id = "sub" onclick="calc(this.id)"/></td>
<td><input type="button" value="Multiplication" id = "mul"
onclick="calc(this.id)"/></td>
<td><input type="button" value="Division" id ="div" onclick="calc(this.id)"/></td></tr>
<tr><td>Answer:</td><td> <input type="text" id="answer" value="" disabled/></td>
<td colspan="2"><input type="button" value="CLEAR ALL" onclick="cls()"/></td> </tr>
</table>
</body></html>
```

**EXPECTED OUTPUT:**




| Test No. | Input Parameters | Expected Output | Obtained Output | Remarks |
|---|---|---|---|---|
| 1. | value1=50.56<br>value2=24.39 | Addition =74.95<br>Subtraction =26.17<br>Multiplication=1233.1584<br>Division=2.072980729807298 | Addition =74.95<br>Subtraction =26.17<br>Multiplication=1233.1584<br>Division=2.072980729807298 | PASS |
| 2. | value1= 0<br>value2= 45 | Addition =45<br>Subtraction =-45<br>Multiplication=0<br>Division=0 | Addition =45<br>Subtraction =-45<br>Multiplication=0<br>Division=0 | PASS |
| 3. | value1= 45<br>value2= 0 | Addition =45<br>Subtraction =45<br>Multiplication=0<br>Division=Infinity | Addition =45<br>Subtraction =45<br>Multiplication=0<br>Division=Infinity | PASS |

**PROGRAM8A: Write a JavaScript that calculates the squares and cubes of the numbers from 0 to 10 andoutputs HTML text that displays the resulting values in an HTML table format.**

```
<!DOCTYPE
HTML> <html>
<head>
<style> table,tr, td
{
border: solid black; width: 33%;
text-align: center;
border-collapse: collapse; background- color:lightblue;
}
table { margin: auto; }
</style>
<script>
document.write( "<table><tr><th colspan='3'> NUMBERS FROM 0 TO 10 WITH THEIR SQUARES
AND CUBES </th></tr>" );
document.write( "<tr><td>Number</td><td>Square</td><td>Cube</td></tr>" );
for(var n=0; n<=10; n++)
{
document.write( "<tr><td>" + n + "</td><td>" + n*n + "</td><td>" + n*n*n + "</td></tr>" ) ;
 }
document.write( "</table>" ) ;
</script>
</head>
</html>
```

**OUTPUT:**

| NUMBERS FROM 0 TO 10 WITH THEIR SQUARES AND CUBES | | |
|---|---|---|
| Number | Square | Cube |
| 0 | 0 | 0 |
| 1 | 1 | 1 |
| 2 | 4 | 8 |
| 3 | 9 | 27 |
| 4 | 16 | 64 |
| 5 | 25 | 125 |
| 6 | 36 | 216 |
| 7 | 49 | 343 |
| 8 | 64 | 512 |
| 9 | 81 | 729 |
| 10 | 100 | 1000 |

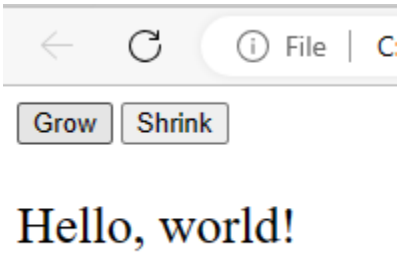
**8B. Write a JavaScript code that displays text "TEXT-GROWING" with increasing font size in the interval of 100ms in RED COLOR, when the font size reaches 50pt it displays "TEXTSHRINKING" in BLUE color. Then the font size decreases to 5pt.**

```
<html>
<head>
</head>
<body>
<center>
<p id="demo"/>
</center>
<script>
var var1=setInterval(inTimer,1000);
var size=5;
var ids=document.getElementById("demo");
function inTimer(){
size+=5;
ids.innerHTML="TEXT GROWING";
ids.setAttribute("style","font-size:"+size+"px; color:red");
if(size>=50)
{
clearInterval(var1);
var var2=setInterval(deTimer,1000);
}
}
function deTimer(){
size-=5;
ids.innerHTML="TEXT SHRINKING";
ids.setAttribute("style","font-size:"+size+"px; color:blue");
if(size<=5)
{
clearInterval(var1);

}
}
</script>
</body>
</html>
```

(Or)

```
<!DOCTYPE html>
<html>
<head>
  <style>
    #text {
      font-size: 16px;
      transition: font-size 0.5s;
    }
  </style>
</head>
<body>
  <button onclick="growText()">Grow</button>
  <button onclick="shrinkText()">Shrink</button>
  <p id="text">Hello, world!</p>
  <script>
    function growText() {
      var text = document.getElementById("text");
      var currentSize = parseInt(window.getComputedStyle(text).fontSize);
      var newSize = currentSize + 2;
      text.style.fontSize = newSize + "px";
    }
    function shrinkText() {
      var text = document.getElementById("text");
      var currentSize = parseInt(window.getComputedStyle(text).fontSize);
      var newSize = currentSize - 2;
      text.style.fontSize = newSize + "px";
    }
  </script>
</body>
</html>
```

**EXPECTED OUTPUT:**

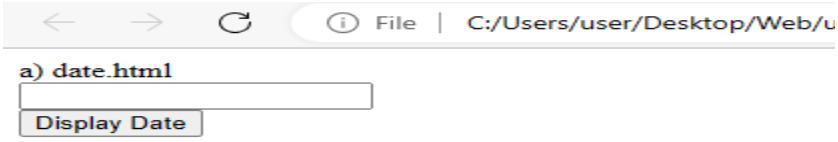


**Program9A: Develop and demonstrate JavaScript with POP-UP boxes and functions for the following problem:**

**Input: Click on Display Date button using onclick( ) function Output: Display date in the textbox**

```
<html>
<body>
<script>
function display(){
var x="You have clicked";
var d=new Date();
var date=d.getDate();
var month=d.getMonth();
month++;
var year=d.getFullYear();
document.getElementById("dis").value=date+"/"+month+"/"+year;
}
</script>
<form>
<input type="text" id="dis" /><br />
<input type="button" value="Display Date" onclick="display()" />
</form>
<body>
</html>
```

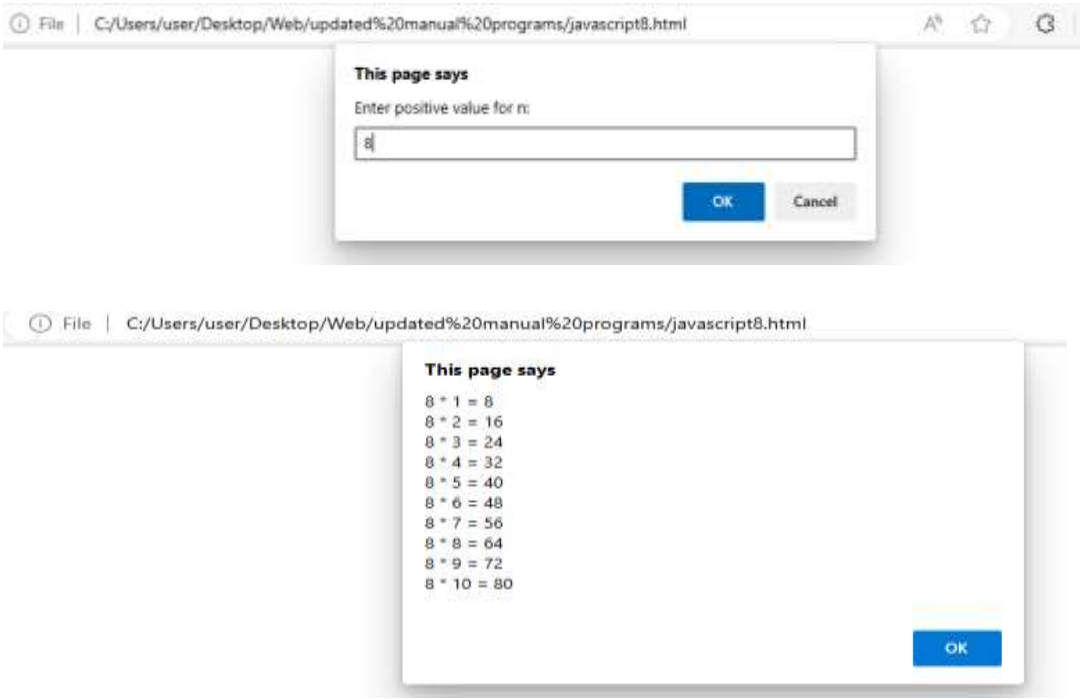
**EXPECTED OUTPUT:**




**9B.Input: A number n obtained using prompt Output: A multiplication table of numbers from 1 to 10 of n using alert**

```
<html>
 <head><title> Multiplication Table </title></head>
 <body>
 <script type="text/javascript">

var n=prompt("Enter positive value for n: "," ");
if(!isNaN(n)) {
 var table="";
 var number="";
 for(i=1;i<=10;i++) {
 number = n * i;
 table += n + " * " + i + " = " + number + "\n";
 }
 alert(table);
 }
 else {
 alert("Enter positive value");
 n=prompt("Enter positive value for n: "," ");
}
document.write(n+" table values displayed using alert ..<br />");
 </script>
</body>
</html>
```

**EXPECTED OUTPUT:**



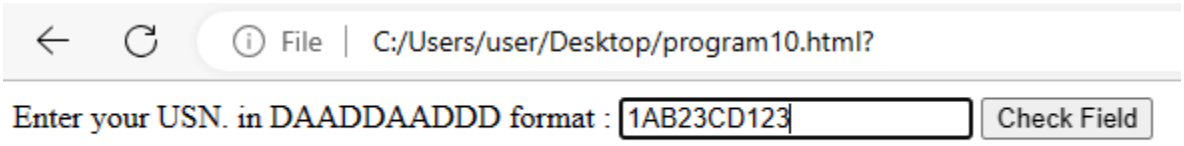
**PROGRAM 10A: Develop and demonstrate, using JavaScript script, a XHTML document that collects the USN ( the valid format is: A digit from 1 to 4 followed by two upper-case characters followed by two digits followed by two upper-case characters followed by three digits; no embedded spaces allowed) of the user. Event handler must be included for the form element that collects this information to validate the input. Messages in the alert windows must be produced when errors are detect.**

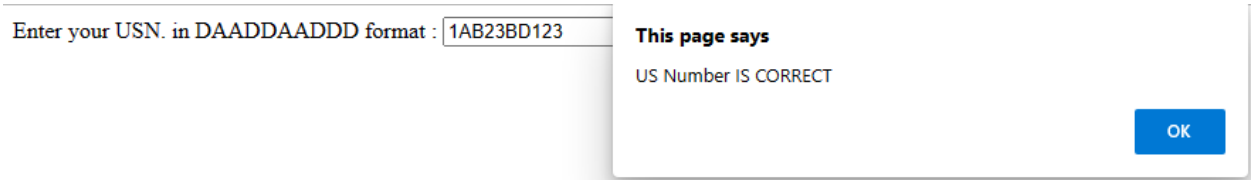
Aim: To write a JavaScript to enter the USN in given format
Algorithm/Procedure: 1.Create a webpage with the name Lab4.html 2.Create Java script enter the USN in given format. Also validate the form input and print error message accordingly.

```
<!DOCTYPE html >

<html>

<script type='text/javascript'>

function formValidator()

{

var usn = document.getElementById('req1');

alert(usn.value);

if(isCorrect(usn))

{

return true;

}

return false;

}

function isCorrect(elem1)

{

alphaExp1=/[1-4][A-Z][A-Z][0-9][0-9][A-Z][A-Z][0-9][0-9][0-9]$/

if(elem1.value.length == 0)

{

alert("US Number is empty");

elem1.focus();

return false;
```

```
}
else if(!elem1.value.match(alphaExp1))
{
alert("US Number should be in DAADDAADDD format");
elem1.focus();
return false;
}
alert("US Number IS CORRECT");
return true;
}
</script>
<body>
<form onsubmit='return formValidator()'>
Enter your USN. in DAADDAADDD format : <input type='text' id='req1'/>
<input type='submit' value='Check Field' />
</form>
</body>
</html>
```

**EXPECTED OUTPUT:**



# Viva Questions

## What is World Wide Web (WWW, W3)?

The World Wide Web -- also known as the web, WWW or W3 -- refers to all the public websites or pages that users can access on their local computers and other devices through the internet. These pages and documents are interconnected by means of hyperlinks that users click on for information. This information can be in different formats, including text, images, audio and video.

## What is Internet?

The Internet, sometimes called simply "the Net," is a worldwide system of computer networks -- a network of networks...

## What is Web server and browser?

A web browser is basically the software that we use for browsing on the internet and displaying pages. Conversely, a web server refers to the software that provides its users with the documents they request via their web browsers.

A web browser, also known as a “browser,” is **an application software that allows users to find, access, display, and view websites**. Microsoft Internet Explorer, Google Chrome, Mozilla Firefox, and Apple Safari are all popular web browsers.

A web server is **software and hardware that uses HTTP (Hypertext Transfer Protocol) and other protocols to respond to client requests made over the World Wide Web**. The main job of a web server is to display website content through storing, processing and delivering WebPages to users.

What is HTTP?

Hypertext Transfer Protocol (HTTP) is **a method for encoding and transporting information between a client (such as a web browser) and a web server**. HTTP is the primary protocol for transmission of information across the Internet.

### **URL:** Universal Resource Locator (URL)

- URL shows the address of a resource on the Internet. It can refer to the website, some particular document, or an image.
- The Internet user just needs to insert URL into the location (Search) bar to find the needed website, document, folder, or image.
- A URL contains the following information:
  - The protocol used to a access the resource
  - The location of the server (whether by IP address or domain name)
  - The port number on the server (optional)
  - The location of the resource in the directory structure of the server
  - A fragment identifier (optional)
- The URLs of a file stored on the Internet are unique in nature.

- General syntax of URL: Protocol://Servername.domain/Directories/Subdirectories/Filename.filetype

DNS: **DNS is short for Domain Name System**. Like a phone-book, DNS maintains and maps the name of the website, i.e. URL, and particular IP address it links to. Every URL on the internet has a unique IP address which is of the computer which hosts the server of the website requested.

# HTML

## What is HTML?

HTML stands for Hyper Text Markup Language. It is a universal language which allows an individual using special code to create web pages to be viewed on internet.

## What is a HTML tag?

HTML tags tells the browser what to do. Tags are the keywords that defines the format of a web page. HTML tags are used to create HTML documents and render their properties. Each HTML tags have different properties.

Some basic HTML tags are:

<!DOCTYPE> : Defines the document type

<html>: Defines an HTML document

<head>: Contains metadata/information for the document

<title>: Defines a title for the document

<body>: Defines the document's body

<h1> to <h6>: Defines HTML headings

<p>: Defines a paragraph

<br> : Inserts a single line break

<hr> : Defines a thematic change in the content

## Write format of a simple HTML page.

```
<HTML>
<HEAD>
<TITLE> This is the Title </TITLE>
</HEAD>
<BODY>
…. Type the body of the program
</BODY>
</HTML>
```

## What is meta element in HTML?

The meta element is used to provide additional information about a document. The meta tag has no content; rather, all of the information provided is specified with attributes.

The two attributes that are used to provide information are name and content. The user makes up a name as the value of the name attribute and specifies information through the content attribute.

One commonly chosen name is keywords; the value of the content attribute associated with the keywords are those which the author of a document believes characterizes his or her document.

example:

```
<meta name = "Title" content = "Programming the Web" />
<meta name = "Author" content = "Divya K" />
```

## What are some text formatting tags in HTML?

1.  - is used for introducing various paragraphs.

2.<br> - this tag is used for giving an empty blank line.

2.HEADING TAGS - <h1> </h1> .. <h6> </h6> is used to introduce various headings. <h1> is the biggest and <h6> is the smallest heading tag.

3.<HR> TAG – is used to draw lines and horizontal rules.

4.<B>,<I>,<U> for bold, italic and underline respectively.

## Explain the use of <img> tag.

Image can be displayed on the web page using <img> tag.

When the <img> tag is used, it should also be mentioned which image needs to be displayed. This is done using src attribute. Attribute means extra information given to the browser

Whenever <img> tag is used, alt attribute is also used. Alt stands for alert.

```
<html>
<head>
<title>display image</title>
Module 1 : Introduction to HTML
</head>
<body>
<img src="abc.png" alt="cannot display"/>
</body>
</html>
```

## How do you change the color of background or text in HTML?

Include the element \"bgcolor\" with a color code in your body tag:

<BODY BGCOLOR=\"#ffffff\" TEXT=\"#000000\" LINK=\"#cc0000\"VLINK=\"#000066\" ALINK=\"#ffff00\">

## How to make a picture of a background image of a web page?

To make a picture a background image on a web page, you should put the following tag code after the </head> tag.

```
1<body  background = "image.gif">
```

Here, replace the “image.gif” with the name of your image file which you want to display on your web page.

## What is hypertext and href?

Hyperlinks are the mechanism which allows the navigation from one page to another.

> The term “hyper” means beyond and “link” means connection

>Whichever text helps in navigation is called hypertext

> Hyperlinks cam be created using <a> (anchor tag)

>The attribute that should be used for <a> is href

Example:

```
<html>
<head>
<title> hyperlink </title>
</head>
<a href = "link.html"> CLICK HERE
</a>
</html>
```

## What is table tag? write syntax.

A table is a two dimensional matrix, consisting of rows and columns. All table related tags are included between <TABLE> </TABLE> tags.

A table is a matrix of cells. The cells in the top row often contain column labels, those in the leftmost column often contain row labels, and most of the rest of the cells contain the data of the table. The content of a cell can be almost any document element, including text, a heading, a horizontal rule, an image, and a nested table.

Syntax:

```
<TABLE>
<TH> Heading </TH>
<TR> Row elements </TR>
<TD> Table data values </TD>
</TABLE>
```

## What do you mean by row spanning and column spanning?

Row spanning is used to merge (combine) two or more rows.

Column spanning is used to merge (combine) two or more columns.

## What is the difference between DIV and SPAN in HTML?

The difference between **span** and **div** is that a span element is **in-line** and usually used for a small chunk of HTML inside a line,such as inside a paragraph. Whereas, a div or division element is **block-line** which is equivalent to having a line-break before and after it and used to group larger chunks of code.

**Example:**

```
1<div id="HTML">
2This is <span class="Web Dev">interview</span>
3</div>
```

## Q18. What is the purpose of using alternative texts in images?

The purpose of using alternative texts is to define what the image is about. During an image mapping, it can

be confusing and difficult to understand what hotspots correspond to a particular link. These alternative texts come in action here and put a description at each link which makes it easy for users to understand the hotspot links easily.

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## Why do you use <blockquote>? give example.

The <blockquote> tag is used to make the contents look different from the surrounding text.

```
<html>
<head>
<title> Blockquotes </title>
</head>
<body>
<p> HELLO THERE </p>
<blockquote>
<p> ROOTWORKZ </p>
</blockquote>
</body>
</html>
```

## Name some common lists that are used when designing a page.

There are many common lists used for design a page. You can choose any or a combination of the following list types:

- **Ordered list** – The ordered list displays elements in a numbered format. It is represented by <ol> tag.
- **Unordered list** – The unordered list displays elements in a bulleted format. It is represented by <ul> tag.
- **Definition list** – The definition list displays elements in definition form like in a dictionary. The <dl>, <dt> and <dd> tags are used to define description list.

## Is the <!DOCTYPE html> tag considered as a HTML tag?

No, the <!DOCTYPE html> declaration is not an HTML tag.

There are many type of HTML, such as, HTML 4.01 Strict, HTML 4.01 Transitional, HTML 4.01 Frameset, XHTML 1.0 Strict, XHTML 1.0 Transitional, XHTML 1.0 Frameset, XHTML 1.1 etc. So, <!DOCTYPE html> is used to instruct the web browser about the HTML page.

### What is semantic HTML?

Semantic HTML is a coding style. It is the use of **HTML markup** to reinforce the semantics or meaning of the content. For example: In semantic HTML ** ** tag is not used for bold statement as well as ** ** tag is used for italic. Instead of these we use **** and **** tags.

### What is marquee?

Marquee is used for the scrolling text on a web page. It scrolls the image or text up, down, left or right automatically. You should put the text which you want to scroll within the **<marquee>……</marquee>** tag.

## What is difference between HTML and XHTML?

The differences between HTML and XHTML are:

- HTML is an application of Standard Generalized Markup Language. Whereas, XML is an application of Extensible Markup Language.
- The first one is a static Web Page whereas the later one is a dynamic Web Page.
- HTML allows programmer to perform changes in the tags and use attribute minimization whereas XHTML when user need a new markup tag then user can define it in this.
- HTML is about displaying information whereas XHTML is about describing the information.

### What are logical and physical tags in HTML?

**Logical tags** are used to tell the meaning of the enclosed text. The example of the logical tag is ** ** tag. When we enclose the text in the strong tag, it tells the browser that enclosed text is more important than other texts.

**Physical tags** are used to tell the browser how to display the text enclosed in the physical tag. Some of the examples of physical tags are **, <big>, .**

## What are HTML forms?

An HTML form is used to allow a user to input data on a web page and the element used is form element and its main attributes are action and method.

The most common way for a user to communicate information from a Web browser to the server is through a form. XHTML provides tags to generate the commonly used objects on a screen form. These objects are called controls or widgets. There are controls for single-line and multiple-line text collection, checkboxes,

radio buttons, and menus, among others. All control tags are inline tags.

ts format is <form action= http://www.example.abc = “get”> <form>

Example:

```
<form action="/action_page.php">
<label for="fname">First name:</label><br>
<input type="text" id="fname" name="fname" value="John"><br>
<label for="lname">Last name:</label><br>
<input type="text" id="lname" name="lname" value="Doe"><br><br>
<input type="submit" value="Submit">
</form>
```

## Write a complete HTML form script using checkbox, actions buttons(SUBMIT, RESET), <textarea> tag and radio button.

```
<html>
<head>
<title> CompleteForm</title>
</head> <body>
<h1>Registration Form</h1>
<form action=" ">
<p> <label>Enter your email id:
<input type = "text" name = "myname" size = "24" maxlength = "25" />
</label> </p>
<p> <label>Enter the password:
<input type = "password" name = "mypass" size = "20" maxlength = "20" />
</label> </p>
<p>
<label><input type="radio" name="act" value="one"/>Male</label>
<label><input type="radio" name="act" value="two"/>Female</label>
</p>
<p>Which of the following Accounts do you have?</p>
<p>
<label><input type="checkbox" name="act" value="one"/>Gmail</label>
<label><input type="checkbox" name="act" value="two"/>Facebook</label>
<label><input type="checkbox" name="act" value="three"/>Twitter</label>
<label><input type="checkbox" name="act" value="four"/>Google+</label>
</p>
<p> Any Suggestions?</p>
<p> <textarea name="feedback" rows="5" cols="100"> </textarea> </p>
<p>Click on Submit if you want to register</p>
<p> <input type="SUBMIT" value="SUBMIT"/>
<input type="RESET" value="RESET"/>
</p>
</form>
</body>
```

<html>

## Explain frames and <frame> tag.

FRAMES

The browser window can be used to display more than one document at a time. The window can be divided into rectangular areas, each of which is a frame. Each frame is capable of displaying its own document.

<frameset> tag:

>The number of frames and their layout in the browser window are specified with the <frameset> tag.

>A frameset element takes the place of the body element in a document. A document has either a body or a frameset but cannot have both.

>The <frameset> tag must have either a rows or a cols attribute. (or both)

> To create horizontal frames, rows attribute is used.

>To create vertical frames, cols attribute is used.

Example of horizontal frame:

```
<html>
<head>
<title>Frameset Rows</title>
</head>
<frameset rows = "*,*">
<frame src = "Framerow1.html"/>
<frame src = ""Framerow2.html"/>
</frameset>
</html>
```

## What are the HTML tags used to display the data in the tabular form?

The list of HTML tags used to display data in the tabular form include:

| Tag | Decsription |
|---|---|
| <table> | It defines a table |
| <tr> | This tag defines a row in a table |
| <th> | It defines a header cell in a table |
| <td> | This is used to define a cell in a table |
| <caption> | It defines the table caption |
| <colgroup> | It specifies a group of one or more columns in a table for formatting |
| <col> | This is used with <colgroup> element to specify column properties for each column |
| <tbody> | This tag is used to group the body content in a table. |
| <thead> | It is used to group the header content in a table |
| <tfooter> | It is used to group the footer content in a table |

# CSS

## What are Style Sheets?

Style sheets are collections of style information that are applied to plain text. Style information includes font attributes such as type size, special effects (bold,italic,underline),color and alignment. Style sheets also provide broader formatting instructions byspecifying values for quantities such as line spacing and left and right margins.

## Define cascading.

Cascading refers to a certain set of rules that browsers use, in cascading order, to determine how to use the style information. Such a set of rules is useful in the event of conflicting style information because the rules would give the browser a way to determine which style is given precedence

## What is CSS?

1. CSS are powerful mechanism for adding styles (e.g. Fonts, Colors, Spacing) to web documents.

2. They enforce standards and uniformity throughout a web site and provide numerous attributes to create

dynamic effects.

3. The advantage of a style sheet includes the ability to make global changes to all documents from a single location. Style sheets are said to cascade when they combine to specify the appearance of a page.

## What are the style precedence rules when using multiple approaches?

Inline styles override both linked style sheets and style information stored in the document head with <STYLE> tag. Styles defined in the document head override linked style sheets. Linked style sheets override browser defaults

## List down the ways of including style information in a document.

1.Linked Styles -Style information is read from a separate file that is specified in the <LINK> tag

2.Embedded Styles -Style information is defined in the document head using the <STYLE> and </STYLE> tags.

3.Inline Styles -Style information is placed inside an HTML tag and applies to all content between that tag and it's companion closing tag.

## Write syntax to introduce style sheets in HTML.

<HTML>

<HEAD>

<STYLE Type = “text/css”>

predefined tag name {attribute name1:attribute value1; attribute name2:attribute

value2; ……attribute name-n:attribute value-n}

<STYLE>

</HEAD>

<BODY>

write the body of program

</BODY> </HTML>

## Can you create a multi-colored text on a web page?

Yes, we can create a multi-colored text on a web page. To create a multicolor text, you can use <font color =”color”> </font> for the specific texts that you want to color.

What happens if you open the external CSS file in a browser?

When you try to open the external CSS file in a browser, the browser cannot open the file, because the file has a different extension. The only way to use an external CSS file is to reference it using **<link/>** tag within another HTML document.

What is the hierarchy that is being followed when it comes to style sheets?

If a single selector includes three different style definitions, the definition that is closest to the actual tag takes precedence. Inline style takes priority over embedded style sheets, which takes priority over external style sheets.

What are the limits of the text field size?

The default size for a text field is around **13 characters**. However, if you include the size attribute, you can set the size value to be as low as 1. The maximum size value will be determined by the browser width. Also, if the size attribute is set to 0, the size will be set to the default size of 13 characters.

## What is Cell Spacing and Cell Padding?

Cell Spacing is referred to as the space or gap between the two cells of the same table. Whereas, Cell Padding is referred to as the gap or space between the content of the cell and cell wall or cell border.

**Example:**

1<table border cellspacing=3>
2<table border cellpadding=3>
3<table border cellspacing=3 cellpadding=3>

## Write script using cellspacing and cellpadding.

Script:

```
<html>
<head>
<title> cell spacing and cell padding </title>
</head>
<body>
<h3>Table with space = 10, pad = 50</h3>
<table border = "7" cellspacing = "10" cellpadding = "50">
<tr>
<td> Kswamy</td>
<td>Chethan </td>
</tr>
</table>
<h3>Table with space = 50, pad = 10</h3>
<table border = "7" cellspacing = "50" cellpadding = "10">
<tr>
<td> Divya </td>
<td>Chethan </td>
</tr>
</table>
</body>
</html>
```

**What is a m**

# JAVASCRIPT

## What is JavaScript ? Why do we use it?

JavaScript is an interpreted, client-side, event-based, objectoriented scripting language that you can use to add dynamic interactivity to your web pages.

We use it to:

>Create special effects with images that give the impression that a button is either highlighted or depressed whenever the mouse pointer is hovered over it.

>Validate information that users enter into your web forms

>Open pages in new windows, and customise the appearance of those new windows.

>Detect the capabilities of the user's browser and alter your page's content appropriately.

> And much more..

<script> tag is used to add JavaScript in HTML
<script language=”JavaScript”
type=”text/JavaScript”>
… code …
</script>

## List JavaScript data types.

i. Number: The number data type is used to represent positive or negative numbers with or without decimal place, or numbers written using exponential notation.

ii. String: The string data type is used to represent textual data . Strings are created using single or double quotes surrounding one or more characters, as shown below:

iii. Boolean: The Boolean data type can hold only two values: true or false. It is typically used to store values like yes (true) or no (false), on (true) or off (false).

iv. Null: This is another special data type that can have only one value-the null value. A null value means that there is no value. It is not equivalent to an empty string ("") or 0

v. Object: The object is a complex data type that allows you to store collections of data.

vi. Undefined: The undefined data type can only have one value-the special value undefined. If a variable has been declared, but has not been assigned a value, has the value undefined.

## Define DOM.

DOM (Document Object Model) is an API that defines how JavaScript programs can access and manipulate the HTML document currently displayed by a browser. It includes the definition of the properties of document object, many of which are themselves objects with their own properties.

**What is the use of typeof operator in JavaScript?**

typeof is an operator that provides information about the data type of a value stored in a variable and also its

use is to test that a variable has been defined before attempting to use it.

It is a unary operator that is placed before its single operand, which can be of any type. Its value is a string indicating the data type of the operand.

The typeof operator evaluates to "number", "string" or "boolean" if its operand is a number, string, or boolean value and returns true or false based on the evaluation.

## Question 31. Explain JavaScript array.

An array is a special type of JavaScript object that can store multiple data values unlike a variable, which can only store one data value at a time.

In order to use an array in JavaScript, you must first create it. There are a number of ways to create arrays in JavaScript.

>arrDays = new Array();

If you already know how many elements a given array will have, you can declare this explicitly:

>arrDays = new Array(7);

>arrDays = new Array("Monday","Tuesday");

>arrDays = ["Monday","Tuesday"];

## What is === operator?

=== is called as strict equality operator which returns true when the two operands are having the same value without any type conversion.

Strict equality === checks that two values are the same or not.

Value are not implicitly converted to some other value before comparison.

If the variable values are of different types, then the values are considered as unequal.

If the variable are of the same type, are not numeric, and have the same value, they are considered as equal.

## Explain all three types of errors in JavaScript.

Logic errors: It is caused by the use of syntactically correct code, which does not fulfill the required task. For example, an infinite loop.

Load-time errors: The errors shown at the time of the page loading are counted under Load-time errors. These errors are encountered by the use of improper syntax, and thus are detected while the page is getting loaded

Run-time errors: This is the error that comes up while the program is running. It is caused by illegal operations, for example, division of a number by zero, or trying to access a non-existent area of the memory.

## Write a function that keeps prompting the user for input until the letter "p" is typed by the user.

```
function Test()
{
var letterP = prompt("Please enter the letter p"," ");
while (letterP!=="p")
{
letterP = prompt("No dummy! Enter the letter p","");
}
alert("Thank you!")
```

the parseInt() function, that takes a string as the first parameter, and the base as a second parameter. So to convert hexadecimal 3F to decimal, use parseInt ("3F", 16);

**14. What boolean operators does JavaScript support?**

&&, || and !

**15. What looping structures are there in JavaScript?**

for, while, do-while loops, but no foreach.

**16. How do you assign object properties?**

obj["age"] = 17 or obj.age = 17.

**17. What's a way to append a value to an array?**

arr[arr.length] = value;

**18. What is THIS keyword?**

It refers to the current object

**19. What does isNaN function do?**

Return true if the argument is not a number.

**20. What is negative infinity?**

It's a number in JavaScript, derived by dividing negative number by zero.

**Where are cookies actually stored on the hard disk?**

This depends on the user's browser and OS.
In the case of Netscape with Windows OS,all the cookies are stored in a single file called cookies.txt
c:\Program Files\Netscape\Users\username\cookies.txt

**23. What can javascript programs do?**

Generation of HTML pages on-the-fly without accessing the Web server. The user can be given control over the browser like User input validation Simple computations can be performed on the client's machine The user's browser, OS, screen size, etc. can be detected Date and Time Handling

**24. How to set a HTML document's background color?**

document.bgcolor property can be set to any appropriate color.

**25. What does the "Access is Denied" IE error mean?**

The "Access Denied" error in any browser is due to the following reason.A javascript in one window or frame is tries to access another window or frame whose document's domain is different from the document containing the script.

**26. Is a javascript script faster than an ASP script?**

Yes. Since javascript is a client-side script it does require the web server's help for its computation,so it is always faster than any server-side script like ASP,PHP,etc..

**27. Are Java and JavaScript the Same?**

No. java and javascript are two different languages.
Java is a powerful object - oriented programming language like C++,C whereas Javascript is a client-side scripting language with some limitations.

**28. How to embed javascript in a web page?**

javascript code can be embedded in a web page between

<script langugage="javascript"> </script> tags

**29. How to access an external javascript file that is stored externally and not embedded?**

This can be achieved by using the following tag between head tags or between body tags. <script src="abc.js"></script> where abc.js is the external javscript file to be accessed.

**30. What is the difference between an alert box and a confirmation box?**

An alert box displays only one button which is the OK button whereas the Confirm box displays two buttons namely OK and cancel.

**31. What is a prompt box?**

A prompt box allows the user to enter input by providing a text box.

**32. Can javascript code be broken in different lines?**

Breaking is possible within a string statement by using a backslash \ at the end but not within any other javascript statement. that is ,
document.write("Hello \
world");
is possible but not
document.write \
("hello world");

**33. How to hide javascript code from old browsers that dont run it?**

Use the below specified style of comments

<script language=javascript>

<!--
javascript code goes here

// -->

**34. How to comment javascript code?**

Use // for line comments and

/*

*/ for block comments

**35. Name the numeric constants representing max,min values**

Number.MAX_VALUE
Number.MIN_VALUE

**36. What does javascript null mean?**

The null value is a unique value representing no value or no object. It implies no object, or null string,no valid Boolean value, no number and no array object.

**37. What does undefined value mean in javascript?**

Undefined value means the variable used in the code doesnt exist or is not assigned any value or the property doesn't exist.

**39. What is the difference between undefined value and null value?**

1. Undefined value cannot be explicitly stated that is there is no keyword called undefined whereas null value has keyword called null
2. typeof undefined variable or property returns undefined whereas typeof null value returns object

**40. Does javascript have the concept level scope?**

No. JavaScript does not have block level scope,all the variables declared inside a function possess the same level of scope unlike c,c++,java.

**41. What are undefined and undeclared variables?**

Undeclared variables are those that are not declared in the program (do not exist at all), trying to read their values gives runtime error.But if undeclared variables are assigned then implicit declaration is done . Undefined variables are those that are not assigned any value but are declared in the program. Trying to read such variables gives special value called undefined value.

**42. What is === operator ?**

==== is strict equality operator ,it returns true only when the two operands are having the same value without any type conversion.

**43. What does the delete operator do?**

The delete operator is used to delete all the variables and objects used in the program ,but it does not delete variables declared with var keyword.

**44. What does break and continue statements do?**

Continue statement continues the current loop (if label not specified) in a new iteration whereas break statement exits the current loop.

**45. How to create a function using function constructor?**

The following example illustrates this
It creates a function called square with argument x and returns x multiplied by itself.

```
var square = new Function ("x","return x*x");
```