Q1. Create an HTML document with following formatting – Bold, Italics, Underline, Colors, Headings, Title, Font and Font Width, Background, Paragraph, Line Brakes, Horizontal Line, Blinking text as well as marquee text

```html
<html>
<head>
    <title>HTML Formatting</title>
    <style>
        body {
            background-color: azure;
            font-family: Arial, sans-serif;
        }
        div {
            background-color: black;
        }
        .custom-font {
            font-family: 'Courier New', Courier, monospace;
        }
        .wide-font {
            font-stretch: expanded;
        }
        .blink {
            color: beige;
            font-size: 15px;
            font-weight: bolder;
            animation: blinker 1.25s linear infinite;
        }
        @keyframes blinker {
            50% {
                opacity: 0;
            }
        }
    </style>
</head>
<body>
```

```html
    <h1>HTML Formatting Showcase</h1>
    <h2 style="color:red;">Heading Level 2</h2>
    <h3 style="color:Green;">Heading Level 3</h3>

    <p class="custom-font wide-font">This is a paragraph using a <span
style="color: red;">custom font</span> and <span style="font-weight: bold;">width
expansion</span>.</p>

    <p>
        <b>Bold text example</b> <br>
        <i>Italic text example</i> <br>
        <u>underlined text example</u> <br>
        <span style="color: red;">Red colored text</span> <br>
        <span style="color: rgba(10, 155, 27, 0.745);"><b>Green colored
text</b></span> <br>
    </p>

    <p>This is a normal paragraph with<br>line breaks using &lt;br&gt; tag.<br>
    Each line appears separately.<br>
    Horizontal rule below:</p>

    <hr>

    <div>
        <span class='blink'>Blinking text using CSS!</span>
    </div>
    <br>
    <marquee direction="left" scrollamount="6" style="color:rgb(205, 14, 167);">
        This is marquee text scrolling left!
    </marquee><br><br>
    <marquee direction="right" scrollamount="6.1" style="color:rgb(213, 179,
8);">
        This is marquee text scrolling right!
    </marquee>

</body>
</html>
```

HTML Formatting Showcase

Heading Level 2

Heading Level 3

This is a paragraph using a custom font and **width expansion.**

Bold text example
Italic text example
underlined text example
Red colored text
Green colored text

This is a normal paragraph with
line breaks using <br> tag.
Each line appears separately.
Horizontal rule below:

Blinking text using CSS!

This is marquee text scrolling left!

This is marquee text scrolling right!

Q2. Create an HTML document with Ordered and Unordered lists,
Inserting Images, Internal and External linking

```html
<html>
<head>
    <title>HTML Lists, Images, and Links Example</title>
</head>
<body>
    <h1>HTML Examples</h1>

    <!-- Unordered List -->
    <h2>Unordered List</h2>
    <ul>
        <li>Coffee</li>
        <li>Tea</li>
        <li>Milk</li>
    </ul>

    <!-- Ordered List -->
    <h2>Ordered List</h2>
    <ol>
```

```html
        <li>First Step</li>
        <li>Second Step</li>
        <li>Third Step</li>
    </ol>

    <!-- Inserting Images -->
    <h2>Image Example</h2>
    <img src="https://avatars.githubusercontent.com/u/231397395?v=4" alt="Demo
Image" width="200">

    <!-- Internal Link (to section in this page) -->
    <h2 id="moreinfo">Internal and External Links</h2>
    <p>Jump to <a href="#imageSection">the image section</a> (internal link).</p>

    <!-- Internal Link (to another page in same folder) -->
    <p>Go to <a href="1x.html">My first HTML</a></p>

    <!-- External Link -->
    <p>Visit <a href="https://github.com/PanshulVA?tab=repositories"
target="_blank">My github</a> (external link).</p>

    <!-- Link target inside same page -->
    <h3 id="imageSection">Image Section</h3>
    <p>This is a section that you can jump to from the internal link above.</p>
</body>
</html>
```

HTML Examples

Unordered List

- Coffee
- Tea
- Milk

Ordered List

1. First Step
2. Second Step
3. Third Step

Image Example

Internal and External Links

Jump to the image section (internal link).

Go to My first HTML

Visit My github (external link).

Image Section

This is a section that you can jump to from the internal link above.

Q3. Create an HTML document for displaying the current semester's timetable.

```html
<html>
<head>
  <title>My Semester 1 Timetable</title>
  <style>
    body { font-family: 'Times New Roman', Times, serif; background: #dfcdaf;}
    table { width:100%; border-collapse:collapse; background: #ffffff; }
    th, td { border:1px solid #444; padding:4px; text-align:center;}
    tbody tr:nth-child(even) { background:#ffffff; }
    .lunch { background:#ffe08a; font-weight:600; }
    .empty { color:#717070; }
    .dsc { font-size:13px; line-height:1.2; color: #0f0e0e; font-weight:bold; }
    .aec { font-size:13px; line-height:1.2; color: chocolate;}
    .vac { font-size:13px; line-height:1.2; color: blueviolet;}
    .sec { font-size:13px; line-height:1.2; color: rgba(5, 151, 22, 0.609); font-weight: bold;}
    .ge  { font-size:13px; line-height:1.2; color: red;}
  </style>
</head>
<body>
  <h1>Semester 1 Timetable of Panshul Vikram Aggarwal</h1>

  <table>
    <thead>
      <tr>
        <b>
        <th>Day / Time</th>
        <th>08:30-09:30</th>
        <th>09:30-10:30</th>
        <th>10:30-11:30</th>
        <th>11:30-12:30</th>
        <th>12:30-01:00<br>Lunch</th>
        <th>01:00-02:00</th>
        <th>02:00-03:00</th>
        <th>03:00-04:00</th>
        <th>04:00-05:00</th>
        <th>05:00-06:00</th>
        </b>
      </tr>
    </thead>
    <tbody>
      <!-- Monday -->
      <tr>
```

```html
        <td>Monday</td>
        <td class="dsc">DSC CS OOP using Python (L)<br>Mr. Vipin Kumar
Rathi<br>Sec 1, P30</td>
        <td class="dsc">DSC CS OOP using Python (L)<br>Mr. Vipin Kumar
Rathi<br>Sec 1, P30</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="lunch">LUNCH</td>
        <td class="dsc">DSC Math for Computing (L)<br>Dr. Aakash (OR)<br>Sec 1,
P29</td>
        <td class="dsc">DSC Math for Computing (L)<br>Dr. Aakash (OR)<br>Sec 1,
P29</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
    </tr>

    <!-- Tuesday -->
    <tr>
        <td>Tuesday</td>
        <td class="dsc">DSC CSA Practical<br>Dr. Kamlesh K. Raghuvanshi<br>Sec 1,
P30</td>
        <td class="aec">AEC Hindi Aupachaarik Lekhan B (L)<br>Mr. Sudhanshu M.
Kestwal<br>Sec 2, P3</td>
        <td class="aec">AEC Hindi Aupachaarik Lekhan B (L)<br>Mr. Sudhanshu M.
Kestwal<br>Sec 2, P3</td>
        <td class="empty">—</td>
        <td class="lunch">LUNCH</td>
        <td class="dsc">DSC Math for Computing (L)<br>Dr. Aakash (OR)<br>Sec 1,
P29</td>
        <td class="vac">VAC Financial Literacy (P)<br>Mr. Ashish Yadav<br>Sec 3,
P26</td>
        <td class="vac">VAC Financial Literacy (P)<br>Mr. Ashish Yadav<br>Sec 3,
P26</td>
        <td class="sec">SEC Front End Web Design & Dev (P)<br>Sonia Sodhi<br>Sec
1, 203</td>
        <td class="sec">SEC Front End Web Design & Dev (P)<br>Sonia Sodhi<br>Sec
1, 203</td>
    </tr>

    <!-- Wednesday -->
    <tr>
        <td>Wednesday</td>
        <td class="dsc">DSC OOP Python (P)<br>Mr. Sahil Pathak, Mr. Vipin K.
Rathi<br>Sec 1, Lab 3 PORTA</td>
```

```
        <td class="dsc">DSC OOP Python (P)<br>Mr. Sahil Pathak, Mr. Vipin K.
Rathi<br>Sec 1, Lab 3 PORTA</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="lunch">LUNCH</td>
        <td class="vac">VAC Financial Literacy (L)<br>Mr. Ashish Yadav<br>Sec 3,
P26</td>
        <td class="ge">GE ECO Essentials of Economics (L)<br>Ms. Vandana
Rathore<br>Sec 1, P1</td>
        <td class="ge">GE ECO Essentials of Economics (L)<br>Ms. Vandana
Rathore<br>Sec 1, P1</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
      </tr>

      <!-- Thursday -->
      <tr>
        <td>Thursday</td>
        <td class="dsc">DSC OOP using Python (L)<br>Mr. Vipin Kumar Rathi<br>Sec
1, P29</td>
        <td class="dsc">DSC CSA Practical (P)<br>Dr. Nikhil K. Rajput, Dr.
Kamlesh K. Raghuvanshi<br>Sec 1, Lab 3 PORTA</td>
        <td class="dsc">DSC CSA Practical (P)<br>Dr. Nikhil K. Rajput, Dr.
Kamlesh K. Raghuvanshi<br>Sec 1, Lab 3 PORTA</td>
        <td class="empty">—</td>
        <td class="lunch">LUNCH</td>
        <td class="ge">GE ECO Essentials of Economics (L)<br>Ms. Isha
Gangwani<br>Sec 1, P1</td>
        <td class="ge">GE ECO Essentials of Economics (T)<br>Ms. Isha
Gangwani<br>Sec 1, P1</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
      </tr>

      <!-- Friday -->
      <tr>
        <td>Friday</td>
        <td class="dsc">DSC CSA Practical (L)<br>Dr. Kamlesh K.
Raghuvanshi<br>Sec 1, P30</td>
        <td class="dsc">DSC CSA Practical (L)<br>Dr. Kamlesh K.
Raghuvanshi<br>Sec 1, P30</td>
        <td class="dsc">DSC Math for Computing (P)<br>Dr. Aakash (OR)<br>Sec 1,
Lab 3 PORTA</td>
```

```html
        <td class="dsc">DSC Math for Computing (P)<br>Dr. Aakash (OR)<br>Sec 1,
Lab 3 PORTA</td>
        <td class="lunch">LUNCH</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
      </tr>

      <!-- Saturday -->
      <tr>
        <td>Saturday</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="lunch">LUNCH</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
      </tr>

      <!-- Sunday -->
      <tr>
        <td>Sunday</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="lunch">LUNCH</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
        <td class="empty">—</td>
      </tr>
    </tbody>
  </table>
</body>
</html>
```

Semester 1 Timetable of Panshul Vikram Aggarwal

Day / Time	08:30–09:30	09:30–10:30	10:30–11:30	11:30–12:30	12:30–01:00 Lunch	01:00–02:00	02:00–03:00	03:00–04:00	04:00–05:00	05:00–06:00
Monday	DSC CS OOP using Python (L) Mr. Vipin Kumar Rathi Sec 1, P30	DSC CS OOP using Python (L) Mr. Vipin Kumar Rathi Sec 1, P30	—	—	LUNCH	DSC Math for Computing (L) Dr. Aakash (OR) Sec 1, P29	DSC Math for Computing (L) Dr. Aakash (OR) Sec 1, P29	—	—	—
Tuesday	DSC CSA Practical Dr. Kamlesh K. Raghuvanshi Sec 1, P30	AEC Hindi Aupachaarik Lekhan B (L) Mr. Sudhanshu M. Kestwal Sec 2, P3	AEC Hindi Aupachaarik Lekhan B (L) Mr. Sudhanshu M. Kestwal Sec 2, P3	—	LUNCH	DSC Math for Computing (L) Dr. Aakash (OR) Sec 1, P29	VAC Financial Literacy (P) Mr. Ashish Yadav Sec 3, P26	VAC Financial Literacy (P) Mr. Ashish Yadav Sec 3, P26	SEC Front End Web Design & Dev (P) Sonia Sodhi Sec 1, 203	SEC Front End Web Design & Dev (P) Sonia Sodhi Sec 1, 203
Wednesday	DSC OOP Python (P) Mr. Sahil Pathak, Mr. Vipin K. Rathi Sec 1, Lab 3 PORTA	DSC OOP Python (P) Mr. Sahil Pathak, Mr. Vipin K. Rathi Sec 1, Lab 3 PORTA	—	—	LUNCH	VAC Financial Literacy (L) Mr. Ashish Yadav Sec 3, P26	GE ECO Essentials of Economics (L) Ms. Vandana Rathore Sec 1, P1	GE ECO Essentials of Economics (L) Ms. Vandana Rathore Sec 1, P1	—	—
Thursday	DSC OOP using Python (L) Mr. Vipin Kumar Rathi Sec 1, P29	DSC CSA Practical (P) Dr. Nikhil K. Rajput, Dr. Kamlesh K. Raghuvanshi Sec 1, Lab 3 PORTA	DSC CSA Practical (P) Dr. Nikhil K. Rajput, Dr. Kamlesh K. Raghuvanshi Sec 1, Lab 3 PORTA	—	LUNCH	GE ECO Essentials of Economics (L) Ms. Isha Gangwani Sec 1, P1	GE ECO Essentials of Economics (T) Ms. Isha Gangwani Sec 1, P1	—	—	—
Friday	DSC CSA Practical (L) Dr. Kamlesh K. Raghuvanshi Sec 1, P30	DSC CSA Practical (L) Dr. Kamlesh K. Raghuvanshi Sec 1, P30	DSC Math for Computing (P) Dr. Aakash (OR) Sec 1, Lab 3 PORTA	DSC Math for Computing (P) Dr. Aakash (OR) Sec 1, Lab 3 PORTA	LUNCH	—	—	—	—	—
Saturday	—	—	—	—	LUNCH	—	—	—	—	—
Sunday	—	—	—	—	LUNCH	—	—	—	—	—

Q4. Create a website with horizontal and vertical frames. Top horizontal frame needs to show your college's name and logo. Bottom horizontal frame is to be split into two vertical frames. The left frame has hyperlinks to pages related to faculty, courses, student activities, etc. The right frame shows the corresponding webpage based on the link clicked on the left frame.

```html
<!DOCTYPE html>
<html>
<head>
    <title>Ramanujan College</title>
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <style>
        body { margin:0; font-family:Arial; }

        /* Top header */
        .header {
            height: 90px;
            background: #f65a29;
            color: white;
            display: flex;
            align-items: center;
            padding: 15px;
            gap: 15px;
        }

        .header img {
            height: 60px;
        }

        /* Layout: left + right */
        .layout {
            display: flex;
            height: calc(100vh - 90px);
        }

        /* Left menu */
        .menu {
            width: 240px;
            background: #e6f2ff;
```

```css
            padding: 15px;
            overflow-y: auto;
        }

        .menu a {
            display: block;
            padding: 10px;
            margin-bottom: 8px;
            background: white;
            border-radius: 6px;
            text-decoration: none;
            font-weight: bold;
            color: #f65a29;
            border: 1px solid #ddd;
        }

        .menu a:hover { background:#f65a29; color:white; }

        /* Right content */
        iframe {
            width: 100%;
            height: 100%;
            border: none;
            background: white;
        }
    </style>
</head>

<body>

<!-- TOP HEADER -->
<div class="header">
    <img
src="https://ramanujancollege.ac.in/media/images/Logo_RCDU_8oecNot.original.png">
    <h2>Ramanujan College — Student / Faculty Portal</h2>
</div>

<!-- MAIN LAYOUT -->
<div class="layout">

    <!-- LEFT MENU -->
    <div class="menu">
        <a href="#" onclick="loadPage('faculty')">Faculty</a>
        <a href="#" onclick="loadPage('courses')">Courses</a>
        <a href="#" onclick="loadPage('activities')">Student Activities</a>
```

```html
        <a href="#" onclick="loadPage('contact')">Contact</a>
    </div>

    <!-- RIGHT CONTENT -->
    <iframe id="contentFrame"
        srcdoc="<h2 style='padding:20px;'>Welcome to Ramanujan College
Portal<br>Select a section from the left.</h2>">
    </iframe>

</div>

<script>
/* ----------------- In-memory pages ----------------- */
const PAGES = {

faculty: `
<!DOCTYPE html><html><body style='font-family:Arial;padding:20px;'>
<h1>Faculty</h1>
<h2>Teachers</h2>
<ol style="line-height:1.6;">
<li>Dr. Aakash</li>
<li>Dr. Kamlesh Raghuvanshi</li>
<li>Mr. Vipin Rathi</li>
<li>Mr. Nikhil Kumar</li>
<li>Mr. Sahil Pathak</li>
<li>Ms. Vandana Rathore</li>
<li>Ms. Isha Gangwani</li>
<li>Mr. Ashish Yadav</li>
<li>Ms. Sonia Sodhi</li>
<li>Mr. Sudhanshu Kestwal</li>
</ol>

<h2>Staff</h2>
<ul>
<li>Mr. Sanjay Bhandari – Senior PA</li>
<li>Ms. Nidhi Mathur – Senior Assistant</li>
<li>Mr. Jitender Sharma – MTS</li>
</ul>

</body></html>
`,

courses: `
<!DOCTYPE html><html><body style='font-family:Arial;padding:20px;'>
<h2>Courses Offered</h2>
```

```html
<h3>Honours</h3>
<ul>
<li>B.Sc. (Hons.) Computer Science</li>
<li>B.Sc. (H) Statistics</li>
<li>B.Sc. (H) Mathematics</li>
<li>B.Sc. (H) Environmental Sciences</li>
<li>B.A. (H) Economics</li>
<li>B.A. (H) English</li>
<li>B.A. (H) Hindi</li>
<li>B.A. (H) Philosophy</li>
<li>B.A. (H) Political Science</li>
<li>B.A. (H) Applied Psychology</li>
<li>B.Com (H)</li>
<li>B.Voc. Software Development</li>
</ul>
</body></html>
`,

activities: `
<!DOCTYPE html><html><body style='font-family:Arial;padding:20px;'>
<h2>Student Activities</h2>
<ul>
<li>TechSoc — Coding Competitions & Workshops</li>
<li>FinClub — Financial Literacy Sessions</li>
<li>Cultural Fest — Abhivyakti</li>
<li>Sports Meet — Annual Athletics & Games</li>
</ul>
</body></html>
`,

contact: `
<!DOCTYPE html><html><body style='font-family:Arial;padding:20px;'>
<h2>Contact</h2>
<p>Email: info@ramanujancollege.example</p>
<p>Office: Ramanujan College</p>
</body></html>
`

};

/* ----------------- Loader ----------------- */
function loadPage(name) {
    document.getElementById("contentFrame").srcdoc = PAGES[name];
}
</script>
```

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

Ramanujan College — Student / Faculty Portal

Faculty

Courses

Student Activities

Contact

Welcome to Ramanujan College Portal
Select a section from the left.

Ramanujan College — Student / Faculty Portal

Faculty

Courses

Student Activities

Contact

Student Activities

- TechSoc — Coding Competitions & Workshops
- FinClub — Financial Literacy Sessions
- Cultural Fest — Abhivyakti
- Sports Meet — Annual Athletics & Games

Faculty

Courses

Student Activities

Contact

Courses Offered

Honours

- B.Sc. (Hons.) Computer Science
- B.Sc. (H) Statistics
- B.Sc. (H) Mathematics
- B.Sc. (H) Environmental Sciences
- B.A. (H) Economics
- B.A. (H) English
- B.A. (H) Hindi
- B.A. (H) Philosophy
- B.A. (H) Political Science
- B.A. (H) Applied Psychology
- B.Com (H)
- B.Voc. Software Development

Contact

Email: info@ramanujancollege.example

Office: Ramanujan College

Faculty

Teachers

1. Dr. Aakash
2. Dr. Kamlesh Raghuvanshi
3. Mr. Vipin Rathi
4. Mr. Nikhil Kumar
5. Mr. Sahil Pathak
6. Ms. Vandana Rathore
7. Ms. Isha Gangwani
8. Mr. Ashish Yadav
9. Ms. Sonia Sodhi
10. Mr. Sudhanshu Kestwal

Staff

- Mr. Sanjay Bhandari – Senior PA
- Ms. Nidhi Mathur – Senior Assistant
- Mr. Jitender Sharma – MTS

Q5. Create a student registration form using HTML which has the following controls and make an interactive content presentation using CSS.: I. Text Box II. Dropdown box III. Option/radio buttons IV. Check boxes V. Reset and Submit button

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Student Registration Form</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background: #eef2f3;
      padding: 20px;
    }

    .form-box {
      width: 400px;
      background: white;
      padding: 20px;
      border-radius: 8px;
      box-shadow: 0 0 10px rgba(0, 0, 0, 0.2);
    }

    form {
      display: flex;
      flex-direction: column;
    }

    label {
      font-weight: bold;
      margin-top: 10px;
    }

    input, select {
      width: 100%;
      padding: 8px;
      margin: 8px 0;
      box-sizing: border-box;
    }
```

```css
    .gender-group, .hobbies-group {
      display: flex;
      gap: 20px;
      align-items: center;
      flex-wrap: wrap;
    }

    .hobbies-group input {
      margin: 5px 10px 5px 0;
    }

    .submit-group {
      display: flex;
      justify-content: space-between;
      gap: 10px;
    }

  </style>
</head>
<body>

<h2>Student Registration Form</h2>
<div class="form-box">
  <form>
    <label for="name">Name:</label>
    <input type="text" id="name" placeholder="Enter your name" />

    <label for="department">Department:</label>
    <select id="department">
      <option>Bsc. Computer Science (Hons.)</option>
      <option>Bvoc. Software Development</option>
      <option>BMS</option>
      <option>B.A. Program</option>
    </select>

    <label>Gender:</label>
    <div class="gender-group">
      <label><input type="radio" name="g" /> Male</label>
      <label><input type="radio" name="g" /> Female</label>
      <label><input type="radio" name="g" /> Other</label>
    </div>

    <label>Hobbies:</label>
    <div class="hobbies-group">
```

```html
      <label><input type="checkbox" /> Developing</label>
      <label><input type="checkbox" /> Making a canvas</label>
      <label><input type="checkbox" /> Sports</label>
      <label><input type="checkbox" /> Cinema</label>
      <label><input type="checkbox" /> Making Music</label>
    </div>

    <div class="submit-group">
      <input type="reset" value="Reset" />
      <input type="submit" value="Submit" />
    </div>
  </form>
</div>

</body>
</html>
```

Student Registration Form

Name:

Panshul Vikram Aggarwal

Department:

Bsc. Computer Science (Hons.)   ⌄

Gender:

◉   ○   ○

Male   Female   Other

Hobbies:

☑   ☑   ☑

Developing   Making a canvas   Sports

☑   ☑

Cinema   Making Music

| Reset | Submit |

Q6. Create a webpage for your department with a drop-down navigation menu for faculty, courses, activities, etc.. Implement the webpage using styles, rules, selectors etc. learned in CSS

```html
<html>
<head>
<title>Practicle 6</title>
<style>
  :root{
    --bg:#f2f4f7; --nav:#173a5e; --accent:#2a9df4; --card:#ffffff;
  }
  *{box-sizing:border-box}
  body{font-family:Inter, Arial, sans-serif; margin:0; background:var(--bg);
color:#111}

  /* Top navigation */
  .topbar{
    background:var(--nav); color:#fff; padding:10px 16px; display:flex; align-
items:center; justify-content:space-between;
  }

  /* Nav menu */
  nav{display:flex; gap:8px; align-items:center}
  .nav-link{color:#fff; text-decoration:none; padding:8px 12px; border-
radius:6px; display:inline-block}
  .nav-link:hover{background:rgba(255,255,255,0.06)}

  /* Dropdown */
  .dropdown{position:relative}
  .dropbtn{background:none;border:none;color:inherit;padding:8px
12px;font:inherit;cursor:pointer;border-radius:6px}
  .dropdown-menu{position:absolute; left:0; top:calc(100% + 8px); display:none;
min-width:220px; background:var(--card); box-shadow:0 6px 20px
rgba(20,30,40,0.12); border-radius:8px; overflow:hidden}
  .dropdown-menu a{display:block;padding:10px 14px;color:#0d2540;text-
decoration:none}
  .dropdown-menu a:hover{background:var(--bg)}
  .dropdown:focus-within .dropdown-menu,.dropdown:hover .dropdown-
menu{display:block}

  /* Page content */
```

```css
  .container{max-width:1100px;margin:28px auto;padding:0 16px}
  .hero{background:linear-gradient(90deg,rgba(42,157,244,0.08),transparent);
padding:22px;border-radius:10px}
  .cards{display:grid;grid-template-columns:repeat(auto-
fit,minmax(240px,1fr));gap:14px;margin-top:16px}
  .card{background:var(--card);padding:16px;border-radius:10px;box-shadow:0 6px
18px rgba(20,30,40,0.06)}

  footer{text-align:center;padding:18px;color:#666}
</style>
</head>
<body>

<header class="topbar">
  <div class="brand">Computer Science Department</div>
  <nav id="mainNav">
    <a class="nav-link" href="#">Home</a>

    <div class="dropdown" tabindex="0">
      <button class="dropbtn">Department ▾</button>
      <div class="dropdown-menu" role="menu">
        <a href="#faculty">Faculty</a>
        <a href="#courses">Courses</a>
        <a href="#activities">Activities</a>
        <a href="#research">Research</a>
      </div>
    </div>

    <a class="nav-link" href="#contact">Contact</a>
  </nav>
</header>

<main class="container">
  <section class="hero">
    <h2>Welcome to the Computer Science Department</h2>
    <p style="margin:8px 0 0">This page demonstrates a styled navigation with
accessible dropdowns, responsive behavior and example content sections using CSS
selectors and rules.</p>
  </section>

  <section class="cards">
    <article id="overview" class="card">
      <h3>B.Sc. (Hons) Computer Science – Overview</h3>
```

```html
      <p>The B.Sc. (Hons) Computer Science programme provides a strong foundation
in computational theory, algorithms, programming, operating systems, networks,
software engineering, and emerging technologies.</p>
      <p>Designed per University of Delhi guidelines, the course combines theory,
labs, minor/major projects, internships, and skill enhancement papers.</p>
    </article>

    <article id="eligibility" class="card">
      <h3>Eligibility & Admission</h3>
      <ul>
        <li>Admission through CUET (UG) as per University of Delhi rules.</li>
        <li>10+2 with Mathematics as a compulsory subject.</li>
        <li>Merit-based seat allocation via CSAS portal.</li>
      </ul>
    </article>

    <article id="courses" class="card">
      <h3>Core Courses</h3>
      <ul>
        <li>Programming in C++ / Java</li>
        <li>Data Structures</li>
        <li>Computer System Architecture</li>
        <li>Operating Systems</li>
        <li>Database Management Systems</li>
        <li>Computer Networks</li>
        <li>Software Engineering</li>
        <li>Theory of Computation</li>
        <li>Artificial Intelligence</li>
        <li>Internet Technologies</li>
      </ul>
    </article>

    <article id="ge" class="card">
      <h3>General Electives (GE)</h3>
      <p>Students may choose GE subjects offered across all departments of the
college, including:</p>
      <ul>
        <li>Mathematical Sciences</li>
        <li>Electronics</li>
        <li>Commerce</li>
        <li>Psychology</li>
      </ul>
    </article>

    <article id="sec" class="card">
```

```html
    <h3>Skill Enhancement Courses (SEC)</h3>
    <ul>
      <li>Python Programming</li>
      <li>Android Development</li>
      <li>Cyber Security Tools</li>
      <li>Web Design & Hosting</li>
    </ul>
  </article>

  <article id="faculty" class="card">
    <h3>Faculty (B.Sc. CS Hons)</h3>
    <ul>
    </ul>
    <li>Dr. Aakash (OR)</li>
    <li>Mr. Vipin Rathi</li>
    <li>Dr. Kamlesh Raghuvanshi</li>
  </article>

  <article id="labs" class="card">
    <h3>Laboratories</h3>
    <ul>
      <li>Fully equipped Computer Labs with 16gb ram i7 and 4gb video
cards</li>
      <li>High-performance networking infrastructure</li>
      <li>Linux, Windows, Docker, and Cloud lab environments</li>
    </ul>
  </article>

  <article id="activities" class="card">
    <h3>Department Activities</h3>
    <ul>
      <li>Seminars & Expert Talks</li>
      <li>Hackathons & Coding Contests</li>
      <li>Workshops on AI, Web Dev, Cybersecurity</li>
      <li>Annual Tech Fest – CODEX</li>
      <li>Research & Innovation Projects</li>
    </ul>
  </article>

  <article id="careers" class="card">
    <h3>Career Opportunities</h3>
    <ul>
      <li>Software Developer</li>
      <li>Data Analyst / ML Engineer</li>
      <li>Cybersecurity Analyst</li>
```

```
        <li>Full-Stack Web Developer</li>
        <li>Cloud Engineer</li>
        <li>System Administrator</li>
        <li>Higher Studies (MCA, M.Sc CS, M.Tech, MBA,Ph.D, etc.)</li>
      </ul>
    </article>
  </section>
</main>

<footer>
  © Ramanujan College — Computer Science Department
</footer>

</body>
</html>
```

Faculty

Courses

Activities

Research

Welcome to the Computer Science Department

This page demonstrates a styled navigation with accessible dropdowns, responsive behavior and example content sections using CSS selectors and rules.

B.Sc. (Hons) Computer Science – Overview

The B.Sc. (Hons) Computer Science programme provides a strong foundation in computational theory, algorithms, programming, operating systems, networks, software engineering, and emerging technologies.

Designed per University of Delhi guidelines, the course combines theory, labs, minor/major projects, internships, and skill enhancement papers.

Eligibility & Admission

- Admission through CUET (UG) as per University of Delhi rules.
- 10+2 with Mathematics as a compulsory subject.
- Merit-based seat allocation via CSAS portal.

Core Courses

- Programming in C++ / Java
- Data Structures
- Computer System Architecture
- Operating Systems
- Database Management Systems
- Computer Networks
- Software Engineering
- Theory of Computation
- Artificial Intelligence
- Internet Technologies

General Electives (GE)

Students may choose GE subjects offered across all departments of the college, including:

- Mathematical Sciences
- Electronics
- Commerce
- Psychology

Skill Enhancement Courses (SEC)

enhancement papers.

Faculty (B.Sc. CS Hons)

- Dr. Aakash (OR)

Laboratories

- Fully equipped Computer

Department Activities

- Seminars & Expert Talks

Skill Enhancement Courses (SEC)

- Python Programming
- Android Development
- Cyber Security Tools
- Web Design & Hosting

Faculty (B.Sc. CS Hons)

- Dr. Aakash (OR)
- Mr. Vipin Rathi
- Dr. Kamlesh Raghuvanshi

Laboratories

- Fully equipped Computer Labs with 16gb ram i7 and 4gb video cards
- High-performance networking infrastructure
- Linux, Windows, Docker, and Cloud lab environments

Department Activities

- Seminars & Expert Talks
- Hackathons & Coding Contests
- Workshops on AI, Web Dev, Cybersecurity
- Annual Tech Fest – CODEX
- Research & Innovation Projects

Career Opportunities

- Software Developer
- Data Analyst / ML Engineer
- Cybersecurity Analyst
- Full-Stack Web Developer
- Cloud Engineer
- System Administrator
- Higher Studies (MCA, M.Sc CS, M.Tech, MBA,Ph.D, etc.)

Q7. Write event-driven programs in JavaScript for the following: ○ Enter a number and on click of a button print its multiplication table. ○ Print the largest of three numbers entered by the user. ○ Find the factorial of a number entered by the user. ○ Enter a list of positive numbers using the prompt terminated by a zero. Find thesum and average of these numbers.

```html
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<title>Practicle 7</title>
<style>
  body { font-family: Arial; background: #f7f7f7; padding: 20px; }
  .section {
    background: white;
    padding: 20px;
    margin-bottom: 20px;
    border-radius: 8px;
    box-shadow: 0 0 8px rgba(0,0,0,0.1);
    width: 400px;
  }
  input { width: 100%; padding: 8px; margin: 8px 0; }
  button { padding: 8px 14px; margin-top: 5px; cursor: pointer; }
  pre { background: #eee; padding: 10px; border-radius: 5px; }
</style>
</head>
<body>
<h2>JavaScript Event-Driven Programs</h2>

<!-- Multiplication Table -->
<div class="section">
  <h3>Multiplication Table</h3>
  <input id="num" type="number" placeholder="Enter a number" />
  <button onclick="table()">Print Table</button>
  <pre id="out1"></pre>
</div>

<!-- Largest of Three Numbers -->
<div class="section">
  <h3>Largest of Three Numbers</h3>
  <input id="a" type="number" placeholder="First number">
  <input id="b" type="number" placeholder="Second number">
  <input id="c" type="number" placeholder="Third number">
  <button onclick="largest()">Find Largest</button>
  <p id="out2"></p>
</div>
```

```html
<!-- Factorial -->
<div class="section">
  <h3>Factorial</h3>
  <input id="f" type="number" placeholder="Enter a number">
  <button onclick="fact()">Find Factorial</button>
  <p id="out3"></p>
</div>

<!-- Sum & Average -->
<div class="section">
  <h3>Sum & Average (Stop with 0)</h3>
  <button onclick="sumavg()">Start Input</button>
  <p id="out4"></p>
</div>

<script>
function table() {
  let n = document.getElementById('num').value;
  let o = "";
  for (let i = 1; i <= 10; i++) o += `${n} x ${i} = ${n*i}\n`;
  document.getElementById('out1').textContent = o;
}

function largest() {
  let x = +document.getElementById('a').value,
      y = +document.getElementById('b').value,
      z = +document.getElementById('c').value;
  document.getElementById('out2').textContent = "Largest = " + Math.max(x, y, z);
}

function fact() {
  let n = +document.getElementById('f').value;
  let r = 1;
  for (let i = 1; i <= n; i++) r *= i;
  document.getElementById('out3').textContent = "Factorial = " + r;
}

function sumavg() {
  let sum = 0, count = 0, num;
  while (true) {
    num = Number(prompt('Enter number (0 to stop):'));
    if (num === 0) break;
    if (num > 0) {
      sum += num;
```

```
        count++;
    }
  }
  document.getElementById('out4').textContent = `Sum = ${sum}, Average = ${sum /
count}`;
}
</script>

</body>
</html>
```

JavaScript Event-Driven Programs

Multiplication Table

```
7899
```

[Print Table]

```
7899 x 1 = 7899
7899 x 2 = 15798
7899 x 3 = 23697
7899 x 4 = 31596
7899 x 5 = 39495
7899 x 6 = 47394
7899 x 7 = 55293
7899 x 8 = 63192
7899 x 9 = 71091
7899 x 10 = 78990
```

Largest of Three Numbers

```
9186
```

```
78903781
```

```
65472993747
```

[Find Largest]

Largest = 65472993747

Factorial

```
14
```

[Find Factorial]

Factorial = 87178291200

Q8. Create a student registration form using text, radio button, check box, drop down box, text field and all other required HTML elements. Customize the CSS and javascript to input and validate all data. Create functions to perform validation of each element, example: ○ Roll number is a 7-digit numeric value ○ Name should be an alphabetical value (String) ○ Non-empty and valid fields like DOB

```html
<html>
<head>
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Student Information Form</title>
</head>
<body>

    <h2 style="text-align:center;">Student Information Form</h2>
    <form>

        <label>Full Name:</label><br>
        <input type="text" placeholder="Enter your full name"><br><br>

        <label>Roll Number:</label><br>
        <input type="text" placeholder="Enter roll number"><br><br>

        <label>Email:</label><br>
        <input type="email" placeholder="Enter email"><br><br>

        <label>Phone Number:</label><br>
        <input type="tel" placeholder="Enter phone number"><br><br>

        <label>Gender:</label><br>
        <input type="radio" name="gender"> Male
        <input type="radio" name="gender"> Female
        <input type="radio" name="gender"> Other<br><br>

        <label>Course:</label><br>
        <select>
            <option>B.Sc (Hons) Computer Science</option>
            <option>B.Voc. Software Development</option>
            <option>B.A Programme</option>
            <option>BMS</option>
        </select><br><br>

        <label>Year:</label><br>
        <select>
            <option>1st Year</option>
            <option>2nd Year</option>
```

```html
        <option>3rd Year</option>
      </select><br><br>

      <label>Skills:</label><br>
      <input type="checkbox"> C Programming<br>
      <input type="checkbox"> Python<br>
      <input type="checkbox"> Java<br>
      <input type="checkbox"> Web Development<br><br>

      <label>Upload Photo:</label><br>
      <input type="file"><br><br>

      <label>Address:</label><br>
      <textarea rows="4" cols="40" placeholder="Enter
address"></textarea><br><br>

      <button type="submit">Submit</button>

    </form>

</body>
</html>
```

Student Information Form

Full Name:

Panshul Vikram Aggarwal

Roll Number:

25570072

Email:

aggarwal.panshul.vikram@

Phone Number:

9810871163

Gender:

◉ Male   ○ Female   ○ Other

Course:

B.Sc (Hons) Computer Science ⌄

Year:

1st Year ⌄

Skills:

☑ C Programming
☑ Python
☑ Java
☑ Web Development

Upload Photo:

[Choose File] 5.html

Address:

Enter address

[Submit]