

USN

--	--	--	--	--	--	--	--	--	--



Internal Assessment Test 1 –April 2023-Scheme & Solution

Sub:	WEB TECHNOLOGY AND ITS APPLICATIONS	Sub Code:	18CS63	Branch:	ISE
Date:	25/04/2022	Duration:	90 min's	Max Marks:	50
		Sem/Sec:	VI A, B & C		OBE

<u>Answer any FIVE FULL Questions</u>		MARKS	CO	RB T																		
1	<p>Design the given form in table layout and use appropriate styles as shown in figure.</p> <p>Form within Table</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <tr><td style="background-color: #fff9c4;">Name</td><td><input type="text"/></td></tr> <tr><td style="background-color: #f4cccc;">Password</td><td><input type="password"/></td></tr> <tr><td style="background-color: #fff9c4;">Email</td><td><input type="text"/></td></tr> <tr><td style="background-color: #f4cccc;">Contact no.</td><td><input type="text"/></td></tr> <tr><td style="background-color: #fff9c4;">Country</td><td><input type="text" value="Choose a country"/></td></tr> <tr><td style="background-color: #f4cccc;">Permant Address</td><td><input type="text" value="enter address with pincode"/></td></tr> <tr><td style="background-color: #fff9c4;">Gender</td><td><input type="radio"/> Male <input type="radio"/> Female</td></tr> <tr><td style="background-color: #f4cccc;">Languages known</td><td><input type="checkbox"/> C <input type="checkbox"/> Java <input type="checkbox"/> Python <input type="checkbox"/> C++</td></tr> <tr><td colspan="2" style="background-color: #fff9c4; text-align: center;"> <input type="button" value="Submit"/> <input type="button" value="Reset"/> </td></tr> </table> <pre> <html> <head> <style> table,th{ border:solid 1pt black; border-collapse: collapse; padding: 15px; } td{ border:solid 1pt black; padding:10px; } tr:nth-child(odd) { background-color: cornsilk; } tr:nth-child(even) { </pre>	Name	<input type="text"/>	Password	<input type="password"/>	Email	<input type="text"/>	Contact no.	<input type="text"/>	Country	<input type="text" value="Choose a country"/>	Permant Address	<input type="text" value="enter address with pincode"/>	Gender	<input type="radio"/> Male <input type="radio"/> Female	Languages known	<input type="checkbox"/> C <input type="checkbox"/> Java <input type="checkbox"/> Python <input type="checkbox"/> C++	<input type="button" value="Submit"/> <input type="button" value="Reset"/>		Code-10	CO2	L3
Name	<input type="text"/>																					
Password	<input type="password"/>																					
Email	<input type="text"/>																					
Contact no.	<input type="text"/>																					
Country	<input type="text" value="Choose a country"/>																					
Permant Address	<input type="text" value="enter address with pincode"/>																					
Gender	<input type="radio"/> Male <input type="radio"/> Female																					
Languages known	<input type="checkbox"/> C <input type="checkbox"/> Java <input type="checkbox"/> Python <input type="checkbox"/> C++																					
<input type="button" value="Submit"/> <input type="button" value="Reset"/>																						

```
background-color:darksalmon
}
th{
background-color: cyan;
}
.merged{
text-align: center;
}
</style>
</head>
<body>
<h2>Form within Table</h2>
<form method="GET" action="" "></form>
<table border = "border">
<tr>
<td>
Name
</td>
<td>
<input type="text" name="name"/>
</td>
</tr>
<tr>
<td>
Password
</td>
<td>
<input type="password" name="password"/>
</td>
</tr>
<tr>
<td>
Email
</td>
<td>
<input type="email" name="email">

```

```
</td>
```

```
</tr>
```

```
<tr>
```

```
<td>
```

Contact no.

```
</td>
```

```
<td>
```

```
<input type="tel" name="contactno">
```

```
</td>
```

```
</tr>
```

```
<tr>
```

```
<td>
```

Country

```
</td>
```

```
<td>
```

```
<select name="where">
```

```
<option>Choose a country</option>
```

```
<option>India</option>
```

```
<option>Australia</option>
```

```
<option>United States</option>
```

```
</select>
```

```
</td>
```

```
</tr>
```

```
<tr>
```

```
<td>
```

Permant Address

```
</td>
```

```
<td>
```

```
<textarea placeholder="enter address with pincode"></textarea>
```

```
</td>
```

```
</tr>
```

```
<tr>
```

```
<td>
```

Gender

```
</td>
```

```
<td>
```

```
<input type="radio" name="gender" value="male">Male
<br>
<input type="radio" name="gender" value="female">Female
</td>
</tr>
<tr>
<td>
  Languages known
</td>
<td>
  <input type="checkbox" name="C"/>
  <label>C</label> <br>
  <input type="checkbox" name="Java"/>
  <label>Java</label> <br>
  <input type="checkbox" name="Python"/>
  <label>Python</label> <br>
  <input type="checkbox" name="PHP"/>
  <label>C++</label>
</td>
</tr>
<tr>
<td class="merged" colspan="2">
  <input type="submit"/>
  <input type="reset"/>
</td>
</tr>
</table>
</body>
</html>
```

2	<p>Explain the need of cascading in CSS. Illustrate the three cascade principles with suitable CSS Script Segments.</p> <p><u>The Cascade: How Styles Interact</u></p> <p>Multiple CSS rules can be defined for the same HTML element, at different locations – inline, embedded or external. The browser determines the style to be applied on an element, depending on the location and hierarchy of the html element.</p> <p>The “Cascade” in CSS refers to how conflicting rules are handled. CSS uses the following cascade principles to help it deal with conflicts: inheritance, specificity, and location.</p> <p>Inheritance Inheritance is the first of these cascading principles. Many (but not all) CSS properties affect not only themselves but their descendants as well. Font, color, list, and text properties are inheritable; layout, sizing, border, background, and spacing properties are not inheritable.</p> <p>If suppose, this is a document,</p> <pre><head> <style> body { font-family: Arial; color: red; border: 8pt solid green; margin: 100px; } div { font-weight: bold; } </style> </head> <body> <div>Will be displayed in red, with arial font and bold</div> </body> <div>Will be displayed in red, with arial font and bold</div> </body></pre> <p>The font settings are inherited from the parent tag, border and margin are not inheritable. However it is possible to tell elements to inherit properties that are normally not inheritable, by explicitly specifying as ‘inherit’.</p> <pre>div { font-weight: bold; border: inherit; margin: inherit; }</pre> <p>Specificity Specificity is how the browser determines which style rule takes</p>	<p>need of cascading in CSS-1M</p> <p>Three Cascading Principles-3M each</p> <p>10</p>	CO1	L1
---	---	--	-----	----

precedence when more than one style rule could be applied to the same element. In CSS, the more specific the selector, the more it takes precedence (i.e., overrides the previous definition)

```
<head>
<style>
  body {
    font-family: Arial; color: red;
    border: 8pt solid green; margin: 100px;

  }

  div {
    font-weight: bold; color: blue;}
</style>
</head>
<body>
<div>Will be displayed in blue, with arial font and bold</div>
</body>
```

```
<div>Will be displayed in blue, with arial font and bold</div>
</body>
```

The content of <div> is displayed in blue, as the red color setting of <body> tag is overridden in the specification of <div> tag.

Location

The principle of location is that when rules have the same specificity, then the latest are given more weight. I.e., an inline style will override one defined in an embedded style sheet and embedded style will override the external style sheet.

Styles defined in external style sheet X will override styles in external style sheet Y if X's <link> element is after Y's in the HTML document.

```
<link rel= "stylesheet" href= "Y">
<link rel= "stylesheet" href= "X">
```

When the same style property is defined multiple times within a single declaration block, the last one will take precedence.

Specificity algorithm:

- First count 1 if the declaration is from a "style" attribute in the HTML, 0 otherwise (let that value = a).
- Count the number of ID attributes in the selector (let that value = b).
- Count the number of class selectors, attribute selectors, and pseudo-classes in the selector (let that value = c).
- Count the number of element names and pseudo-elements in the selector (let that value = d).
- Finally, concatenate the four numbers a+b+c+d together to calculate the

	selector's specificity.			
3 (a)	<p>Explain the role of the following commands in HTML5 with syntax</p> <p>i) <nav> ii) <figure> iii) <aside></p> <p>Navigation</p> <p>The <nav> element represents a section of a page that contains links to other pages or to other parts within the same page. Like the other new HTML5 semantic elements, the browser does not apply any special presentation to the <nav> element. The <nav> element was intended to be used for major navigation blocks. However, like all the new HTML5 semantic elements, from the browser's perspective, there is no definite right or wrong way to use the <nav> element. Its sole purpose is to make the document easier to understand.</p> <pre data-bbox="245 764 1094 1167"> <header> <h1>Fundamentals of Web Development</h1> <nav role="navigation"> Home About Us Browse </nav> </header> </pre> <p>Figure and Figure Captions</p> <p>Prior to HTML5, web authors typically wrapped images and their related captions within a nonsemantic <div> element. In HTML5 we can instead use the <figure> and <figcaption> elements. <i>The figure element represents some flow content, optionally with a caption, that is self-contained and is typically referenced as a single unit from the main flow of the document.</i></p> <pre data-bbox="245 1549 1149 1822"> <p>This photo was taken on October 22, 2011 with a Canon EOS 30D camera.</p> <figure>
 <figcaption>Conservatory Pond in Central Park</figcaption> </figure> </p> </pre> <p>The above tags illustrates a sample usage of the <figure> and <figcaption> element.</p> <p>Aside</p>	6 2M Each	CO1	L1

	<p>The <aside> element is similar to the <figure> element, the <aside> element “represents a section of a page that consists of content that is indirectly related to the content around the aside element”. The <aside> element is be used for sidebars, pull quotes, groups of advertising images, or any other grouping of non-essential elements.</p>			
3 (b)	<p>Compare id selector and class selector in CSS with suitable example.</p> <p>A class selector allows to simultaneously target different HTML elements. The HTML elements with the same class attribute value, can be styled by using a class selector.</p> <p>Syntax: period (.)classname{ styles }</p> <p>Eg:</p> <pre><head> <title>Student details </title> <style> .first { Font-style: italic; Color:red; } </style> </head> <body> <h1 class="first">Student Info</h1> <div> <p class="first">Amith</p> <p>Easy to learn.</p> </div> <hr/> <div> <p class="first">Bhushan</p> <p>Very much special.</p> </div> <hr/> </body></pre> <p><u>Id Selectors</u></p> <p>An id selector allows to assign style to a specific element by its id attribute. Syntax: hash (#)id name</p> <p>Eg:</p> <pre><head> <title>Student details </title> <style> #first{ Font-style: italic;</pre>	4 2M each	CO1	L2

	<pre> Color:red; } </style> </head> <body> <h1 id="first">Student Info</h1> <div> <p id="first">Amith</p> <p>Easy to learn.</p> </div> <hr/> <div> <p >Bhushan</p> <p>Very much special.</p> </div> <hr/> </body> </pre>			
4(a)	<p>What is CSS? Illustrate how it is added to HTML in different ways with suitable examples</p> <p>Inline Styles Inline styles are style rules placed within an HTML element using the style attribute, as shown below. An inline style only affects the element it is defined within and overrides any other style definitions. Selector is not necessary with inline styles and that semicolons are only required for separating multiple rules.</p> <p>Disadvantages of using inline style- Style is applied to an element only Maintaining the inline style is difficult</p> <p>The advantage of using inline style is that it can be quickly tested for a style change. Eg: <h2 style = “font-size:24pt;”> Description</h2> <h2 style = “font-size:24pt; font-weight:bold;”> Reviews </h2></p> <p>Embedded Style Sheet (Document Level/Internal) Embedded style sheets (also called internal styles or document level styles) are style rules placed within the <style> element (inside the <head> element of an HTML document) and apply to the whole body of the document.</p>	6 2M each	C01	L2

	<p>The disadvantage of using embedded styles is that it is difficult to consistently style multiple documents when using embedded styles. But it is helpful when quickly testing out a style that is used in multiple places within a single HTML document. Spaces are ignored in <style> element.</p> <pre> <head> <title>Student Data</title> <style> h1 { font-size: 24pt; } h2 { font-size: 18pt; font-weight: bold; } </style> </head> <body> <h1>Student count</h1> <h2>CSE/ISE Department</h2> </body> </pre> <p>External Style Sheet External style sheets are style rules placed within an external text file with the .css extension. This style provides the best maintainability. When you make a change to an external style sheet, all HTML documents that reference that style sheet will automatically use the updated version.</p> <p>To reference an external style sheet, you must use a <link> element (within the <head> element). Several style sheets can be linked at a same time. Each linked style sheet will require its own <link> element.</p> <pre> <head > <title>Share Your Travels -- New York - Central Park</title> <link rel="stylesheet" href="styles.css" /> </head> </pre>			
4(b)	<p>Explain the role of and HTML tags with example.</p> <p>Lists HTML provides simple and effective ways to specify lists in documents. There are three types of lists:</p> <ul style="list-style-type: none"> ■ Unordered lists. Collections of items in no particular order; these are by default rendered by the browser as a bulleted list. However, it is common in CSS to style unordered lists without the bullets. Unordered lists have become the conventional way to markup navigational menus. ■ Ordered lists. Collections of items that have a set order; these are by default rendered by the browser as a numbered list. 	4 2M each	CO1	L1

```

<ul>
  <li><a href="index.html">Home</a></li>
  <li>About Us</li>
  <li>Products</li>
  <li>Contact Us</li>
</ul>

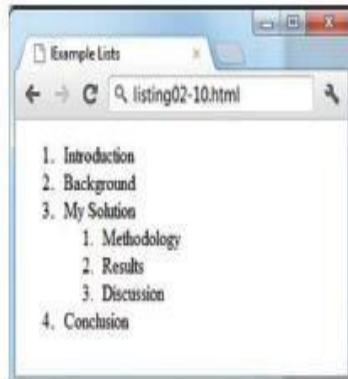
```

Notice that the list item element can contain other HTML elements.

```

<ol>
  <li>Introduction</li>
  <li>Background</li>
  <li>My Solution</li>
  <li>
    <ol>
      <li>Methodology</li>
      <li>Results</li>
      <li>Discussion</li>
    </ol>
  </li>
  <li>Conclusion</li>
</ol>

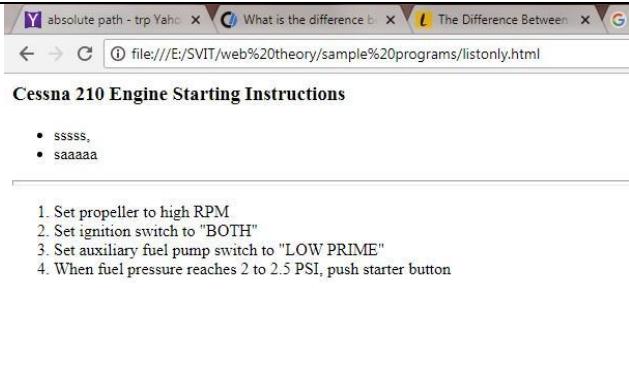
```



```

<html >
<head> <title> list </title>
</head>
<body>
  <h3> Cessna 210 Engine Starting Instructions </h3>
  <ul >
    <li>sssss,</li>
    <li>saaaaa</li>
  </ul>
  <hr size="5" />
  <ol >
    <li> Set propeller to high RPM </li>
    <li> Set ignition switch to "BOTH" </li>
    <li> Set auxiliary fuel pump switch to "LOW PRIME" </li>
    <li> When fuel pressure reaches 2 to 2.5 PSI, push starter button </li>
  </ol>
</body>
</html>

```



5 Explain Text input controls, with example for each

Ans. Forms gather text information from the user. Egs: search box, login form, a user registration form, some type of text input.

Type	Description
text	Creates a single-line text entry box. <code><input type="text" name="title" /></code>
textarea	Creates a multiline text entry box. You can add content text or if using an HTML5 browser, placeholder text (hint text that disappears once user begins typing into the field). <code><textarea rows="3" ... /></code>
password	Creates a single-line text entry box for a password (which masks the user entry as bullets or some other character) <code><input type="password" ... /></code>
search	Creates a single-line text entry box suitable for a search string. This is an HTML5 element. Some browsers on some platforms will style search elements differently or will provide a clear field icon within the text box. <code><input type="search" ... /></code>

10
Explanation-5M
Example-5M
CO 2 L2

email Creates a single-line text entry box suitable for entering an email address. This is an HTML5 element. Some devices (such as the iPhone) will provide a specialized keyboard for this element. Some browsers will perform validation when form is submitted.

```
<input type="email" ... />
```

tel Creates a single-line text entry box suitable for entering a telephone. This is an HTML5 element. Since telephone numbers have different formats in different parts of the world, current browsers do not perform any special formatting or validation. Some devices may, however, provide a specialized keyboard for this element.

```
<input type="tel" ... />
```

url Creates a single-line text entry box suitable for entering a URL. This is an HTML5 element. Some devices may provide a specialized keyboard for this element. Some browsers also perform validation on submission.

```
<input type="url" ... />
```

TABLE 4.3 Text Input Controls

```
<input type="text" ... />
```

Text:

```
<textarea>enter some text</textarea> <textarea placeholder="enter some text"></textarea>
```

TextArea: TextArea:

```
<input type="password" ... />
```

Password: Password:

```
<input type="search" placeholder="enter search text" ... />
```

Search: Search:

```
<input type="email" ... />
```



```
<input type="url" ... />
```



```
<input type="tel" ... />
```



```
<input type="tel" ... />
```



FIGURE 4.16 Text input controls

6 What are HTML elements & attributes? Explain with syntax & Example.

ANS: HTML Syntax-Elements and Attributes

HTML documents are composed of textual content and HTML elements. The term element is often used interchangeably with the term tag. HTML element is a more expansive term that encompasses the element name within angle brackets (i.e., the content within the tag (though some elements contain no extra content).

A tag consists of the element name within angle brackets. The element name appears both the beginning tag and the closing tag, which contains a forward slash followed by the element's name, again all enclosed within angle brackets. The closing tag acts like a switch for the on-switch that is the start tag. An HTML attribute is a name=value pair that provides more information about the HTML element.



FIGURE 2.4 The parts of an HTML element

An empty element does not contain any text content; instead, it is an instruction to the browser to do something. Perhaps the most common empty element is , the image element.

10
Explanation-5M
Example-5M
CO2
L1