Assignment #2

Date Given: Week of October 17, 2021

 Date Due: October 29, 2021

Weight: 20%

Total Marks: 50

Instructions: Complete all questions. For question 1, use a text editor to create the web documents. For all other questions answer inside this document.

1) (a) Write a JavaScript program to create a mini calculator which multiply and divide two numbers. The numbers must be inputted by the user. Once the calculation is done, it must print the result of the calculation.
   (b) Use an external style sheet to style each input field and buttons. Ensure to style the background and fonts. Your html document must include comments. (25 Marks)

2) List and describe the HTML layout structure. (10 Marks)

3) Explain the advantages of HTML5 over its previous versions? (5 marks)

4) Explain the difference between inline and block elements and give at least 3 example of inline and block elements. (5 marks)

5) Explain five new input types which are now provided by HTML5? (5 Marks)

Submission Guideline:

Upload your assignment on Moodle. Place all pieces of your work into one folder. Zip the folder and save the zip folder in the format ITT208_CWK2_fullname (Enter your full name)

2. List and describe the HTML layout structure. (10 Marks)

HTML has several semantic elements that define the different parts of a web page. These include:

<header> - Defines a header for a document or a section

<nav> - Defines a set of navigation links

<section> - Defines a section in a document

<article> - Defines an independent, self-contained content

<aside> - Defines content aside from the content (like a sidebar)

<footer> - Defines a footer for a document or a section

<details> - Defines additional details that the user can open and close on demand

<summary> - Defines a heading for the <details> element

Source: https://www.w3schools.com/html/html_layout.asp

3. Explain the advantages of HTML5 over its previous versions

Thanks to HTML5, web pages can now store data locally on the user's browser, which eliminates the need for HTTP cookies. As a result, content can be delivered faster and more securely. HTML5 has also made it easier to ensure consistency across all browsers. Since browsers have traditionally relied upon different plugins to play multimedia files, native support of video and audio allows developers to avoid compatibility issues. New attributes also allow for video controls including play, pause, and volume options.

- Deprecated elements like center, font, and strike have been dropped

- Improved parsing rules allow for more flexible parsing and compatibility

- New elements including video, time, nav, section, progress, meter, aside and canvas.

- New input attributes including email, URL, dates and times

- New attributes including charset, async and ping

- New APIs that offer offline caching, drag-and-drop support and more

- Support for vector graphics without the aid of programs like Silverlight or Flash

- Support for MathML to allow better display of mathematical notations

- JavaScript can now run in the background thanks to the JS Web worker API

Source: https://www.keycdn.com/blog/html-vs-html5

4. Explain the difference between inline and block elements and give at least 3 example of inline and block elements. (5 marks)

Block Elements	Inline Elements
A block-level element always starts on a new line	An inline element does not start on a new line.
A block-level element always takes up the full width available (stretches out to the left and right as far as it can).	An inline element only takes up as much width as necessary.
A block level element has a top and a bottom margin	An inline element does not have a top and bottom margin

Block elements examples:

- <dl>

- <header>

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Inline element examples:

- <a>

- <abbr>

- <button>

Source: https://www.w3schools.com/html/html_blocks.asp

5. Explain five new input types which are now provided by HTML5? (5 Marks)

Input Type	Description	HTML Markup
date	A control for entering the date.	<input type="date">
email	Validates the input using the standard email format	<input type="email">
url	Accepts URLs only	<input type="url">
search	Searches a data set (like a <datalist> HTML element)	<input type="search">
color	Allows you to enter a simple color value (which is in hexadecimal color notation)	<input type="color"">

Source: https://www.webfx.com/blog/web-design/new-html5-form-input-types/

Assessment Category	Criteria	Marks Awarded	
Question 1	JavaScript program execute multiplication and division without any error. HTML document styling forms a pleasing palette and does not detract from the content. Each input field and button must be properly styled to form a pleasing palette. Comments are clearly written and make it easy to understand HTML document.	[0-25]	0 /25
Question 2	Clear description of the HTML layout structure.	[0-10]	0 /10
Question 3	Advantages of HTML5 versus its previous versions, clearly described.	[0-5]	0 /5
Question 4	The difference between inline and block elements properly explained with examples of each elements.	[0-5]	0 /5
Question 5	Explain five new input types which are now provided by HTML5	[0-5]	0 /5