**ULSTER UNIVERSITY**

**HTML, CSS, JavaScript**

**Problem Solving Quiz**

**Total Marks: / 30**

**July’2025**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ University ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Lecturer: Dr Rizwana Naz Asif**

**Course\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Semester: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **Multiple Choice**

**Note: Tick inside the bracket for the correct answer.**

1. Complete the HTML to insert an image with alt text 'Logo':  
  
<img \_\_\_\_\_\_\_ = 'logo.png' alt='Logo'>

* ( ) src
* ( ) href
* ( ) link
* ( ) image

2. Where in the HTML document is the correct place to refer to an external CSS file?

* ( ) At the end of the document
* ( ) In the <body>
* ( ) In the <head>
* ( ) In the <footer>

3. Which is the correct syntax for applying a style?

* ( ) selector {property = value;}
* ( ) selector: property = value;
* ( ) selector {property: value;}
* ( ) selector: {value; property}

4. What symbol is used for ID selectors in CSS?

* ( ) .
* ( ) #
* ( ) \*
* ( ) @

5. What symbol is used for class selectors in CSS?

* ( ) #
* ( ) @
* ( ) .
* ( ) :

6. Complete the CSS rule to color all <p> elements red:  
  
p { \_\_\_\_\_\_\_: red; }

* ( ) color
* ( ) font-color
* ( ) text-color
* ( ) background

7. The way to write a comment in javascript?

* ( ) // This is a comment
* ( ) <! - -This Is a comment -->
* ( ) /\* this is acomment \*/
* ( ) # this is a comment

8. The way to write a comment in html?

* ( ) // This is a comment
* ( ) <! - -This Is a comment -->
* ( ) /\* this is acomment \*/
* ( ) # this is a comment

9. Fix the error in the following HTML code:  
  
<a> href='http://ulster.ac.uk' Visit Ulster </a>

* ( ) Add <a href='http://ulster.ac.uk'>Visit Ulster</a>
* ( ) Add a closing tag </a> at the beginning
* ( ) Replace href with src
* ( ) Add target='\_blank'

10. What is the result of Type of Null in javascript?

* ( ) Undefined
* ( ) Boolean
* ( ) null
* ( ) object

1. **Problem Solving Questions**

**1. Function to Add Two Numbers**

**Q:**  
Write a function that takes two numbers and returns their sum.

**2. Change Page Background via Button**

**Q:**  
Create a button that when clicked changes the background color of the whole page to lightgreen.

**3. Greeting Function**

**Q:**  
Create a function that prints “Hi, how are you?” when called.

**A.3.b.**

**Q:**  
Write a function greet that accepts a name.

* If the name is provided (not empty), print:  
  **"Hi [name], how are you?"**
* Else, print:  
  **"Hi there, please enter your name!"**

**A.3.c**

**Q:**

Write a function greet that accepts a name.

* If the name is provided (not empty), print:  
  **"Hi [name], how are you?"**
* Else, print:  
  **"Hi there, please enter your name!"**

**4. Style a Div with CSS**

**Q:**  
Create a page titled “New Site” with a <div id="menu">. Apply CSS: width 300px, height 150px, background-color lightblue.and place the Image as well as background

**5. Divisibility Function**

**Q:**  
Write a JavaScript function that returns true if a number is divisible by both 2 and 4.

**6. Create a Button and Click Handler**

**Q:**  
Create a button that when clicked, changes text in a <p> with ID display to "Button Clicked!".

**7. Background Change on Mouseover**

**Q:**  
Make a <div> with id hoverBox. When the mouse hovers over it, change background to yellow using JS.

**8. Create a Styled Navigation Bar**

**Q:**  
Create a horizontal nav bar with 3 links using <nav> and CSS to display them in a row.

**9. HTML Footer Styling**

**Q:**  
Create an HTML page with an <article> and <footer>. Style the footer with a gray background and center-aligned text.

**10. Even or Odd Checker Function**

**Q:**  
Write a function that takes a number, logs "Even" or "Odd", and returns true for even, false for odd.