**Web Development Quiz: HTML, CSS, JavaScript, PHP**

===============================================

**Section 1: Objective**

1. Which tag is used to create a hyperlink?

a) <link>

b) <a>

c) <href>

d) <hyperlink>

2. What does `margin: 10px 5px;` represent?

a) Top=10px, Right=5px, Bottom=10px, Left=5px

b) Top=5px, Right=10px, Bottom=5px, Left=10px

c) Top=10px, Right=5px, Bottom=5px, Left=10px

3. What is the output of `console.log(2 + "2")`?

a) 4

b) "22"

c) "4"

4. Which function starts a PHP session?

a) session\_create()

b) session\_start()

c) start\_session()

5. Which JavaScript method converts a JSON string into an object?

a) JSON.toObject()

b) JSON.parse()

c) JSON.stringify()

**Section 2: Theoretical**

1. Explain the difference between \*\*inline\*\* and \*\*block-level elements\*\* in HTML.

2. What is the \*\*CSS Box Model\*\*? Name its components.

3. Define \*\*closures\*\* in JavaScript and provide a use case.

4. What is the difference between \*\*GET\*\* and \*\*POST\*\* methods in PHP form handling?

5. Describe \*\*event bubbling\*\* in JavaScript.

**Section 3: Programming**

1. Write code to create a form with fields for \*name\* (text), \*email\* (email), and a submit button.

2. Write HTML/CSS to build a responsive two-column layout that stacks on mobile.

3. Write a function to reverse a string (e.g., "hello" → "olleh").

4. Write a script to connect to a MySQL database using MySQLi.

5. Write a regex-based function to validate email format.

**Section 4: Application-Based**

1. A user complains their HTML page isn’t rendering correctly. The code has `<div><img src="image.jpg"></div>`. What’s missing?

2. A layout uses `float: left` but causes overlapping elements. How would you fix it using Flexbox?

3. The code `document.querySelector('.btn').addEventListener('click', alert('Clicked!'));` isn’t working. Why?

4. How would you sanitize user input in a PHP form to prevent SQL injection?

5. What does `console.log([1, 2] + [3, 4])` print in JavaScript?

**Section 5: Advanced Questions**

1. Explain the concept of \*\*hoisting\*\* with an example.

2. How do \*\*sessions\*\* differ from \*\*cookies\*\*?

3. What is the difference between `em` and `rem` units?

4. What is the purpose of the `data-\*` attribute? Provide an example.

5. How would you implement \*\*AJAX\*\* to fetch data from a PHP backend without reloading the page?