WEB DEVELOPMENT

TEST-1

1) What is the purpose of the HTML <table> element? **(HTML-Basic)**

A) It defines a hyperlink.

B) It represents a block of code.

C) It defines a table.

D) It creates a navigation bar.

Correct Answer: C) It defines a table.

2) Which of the following is NOT a valid HTML tag? **(HTML-Basic)**

A)

B) <section>

C) <spacer>

D) <article>

Correct Answer: C) <spacer>

3) What is the purpose of the HTML <footer> tag? **(HTML-Basic)**

A) It defines a section in the document.

B) It represents a footer for the document or a section.

C) It specifies the main content of the HTML document.

D) It defines a form in the document.

Correct Answer: B) It represents a footer for the document or a section.

4) How do you create an ordered list with lowercase Roman numerals in HTML? **(HTML-Medium)**

A) <ol type="roman">

B) <ol style="roman">

C) <ol type="i">

D) <ol style="i">

Correct Answer: C) <ol type="i">

5) What does the HTML attribute alt stand for in the <img> tag? **(HTML-Medium)**

A) Alternative

B) Altitude

C) Alteration

D) Attribution

Correct Answer: A) Alternative

6) How can you create a clickable email link in HTML? **(HTML-Medium)**

A) <email>

B) Click me

C) <link email="example@email.com">

D) Click me

Correct Answer: B) Click me

7) Which HTML element is used to embed external content or resources, such as images or videos, into a web page? **(HTML-Medium)**

A) <embed>

B) <link>

C) <iframe>

D) <object>

Correct Answer: C) <iframe>

8) What is the correct way to create an unordered list with three list items in HTML? **(HTML-HARD)**

A) <form>

```
  <input type="text">
  <input type="submit" value="Submit">
</form>
```

B)
```
<form>
  <label for="input">Text:</label>
  <input type="text" id="input" name="input">
  <button type="submit">Submit</button>
</form>
```

C)
```
<form>
  <input type="text">
  <button type="submit">Submit</button>
</form>
```

D)
```
<form>
  <input type="text" name="input">
  <button type="submit">Submit</button>
</form>
```

Correct Answer: B)
```
<form>
  <label for="input">Text:</label>
  <input type="text" id="input" name="input">
  <button type="submit">Submit</button>
</form>
```

9) How do you include an external JavaScript file in an HTML document? **(HTML-HARD)**

A) `<script type="text/javascript" src="script.js"></script>`

B) `<javascript src="script.js"></javascript>`

C) <link rel="javascript" href="script.js">

D) <script src="script.js"></script>

Correct Answer: A) <script type="text/javascript" src="script.js"></script>

10) In HTML, how do you create a numbered list with a starting value of 5? **(HTML-HARD)**

A) <ol start="5">
  Item 1
  Item 2

B) <ol value="5">
  Item 1
  Item 2

C)
  <li value="5">Item 1
  Item 2

D)
  Item 5
  Item 6

Correct Answer: A) <ol start="5">
  **
Item 1
**
  **
Item 2
**

**
**

11) What is the purpose of the CSS property `margin`? **(CSS-Basic)**

A) To add space between the border and content of an element.

B) To set the width of an element.

C) To change the background color of an element.

D) To define the font size of an element.

Correct Answer: A

Explanation: The `margin` property in CSS is used to create space outside the border of an element.

12) How do you select all paragraphs within a `<div>` element with the class "content" using CSS? **(CSS-Basic)**

A) `.content p`

B) `div .content p`

C) `div > p`

D) `p .content`

Correct Answer: A) .content p

Explanation: The correct CSS selector to select all paragraphs within a `<div>` element with the class "content" is `.content p`.

13) What does the CSS property `display: inline-block;` do? **(CSS-Medium)**

A) Makes the element display as a block-level element.

B) Makes the element display as an inline element.

C) Combines inline and block-level features, allowing for inline styling and block-level layout.

D) Hides the element from the display.

Correct Answer: C) Combines inline and block-level features, allowing for inline styling and block-level layout.

Explanation: `display: inline-block;` allows the element to be treated as an inline element, but it retains some properties of a block-level element.

14) How can you set a background image for an element in CSS? **(CSS-Basic)**

A) `background-image: url('image.jpg');`

B) `image: url('image.jpg');`

C) `background: image('image.jpg');`

D) `image-url: 'image.jpg';`

Correct Answer: A) `background-image: url('image.jpg');`**

Explanation: The `background-image` property is used to set a background image for an element in CSS.

15) What is the purpose of the CSS property `position: relative`? **(CSS-Medium)**

A) Positions the element relative to its normal position.

B) Centers the element on the page.

C) Sets the position of the element to an absolute value.

D) Hides the element from the display.

Correct Answer: A) Positions the element relative to its normal position.

Explanation: `position: relative` allows you to position an element relative to its normal position in the document flow.

16) What is the purpose of the `let` keyword in JavaScript? **(JS-Basic)**

A) Declares a variable with block scope

B) Declares a variable with function scope.

C) Declares a variable with global scope.

D) Declares a constant variable.

Correct Answer: A) Declares a variable with block scope

17) How do you write a single-line comment in JavaScript? **(JS-Basic)**

A) `// This is a comment`

B) `<!-- This is a comment -->`

C) `/* This is a comment */`

D) `"" This is a comment ""`

Correct Answer: A) `// This is a comment`

18) What is the purpose of the `querySelector` method in JavaScript? **(JS-Basic)**

A) Selects the first element with a specific class.

B) Selects all elements with a specific class.

C) Selects elements based on their tag name.

D) Selects elements based on their ID.

Correct Answer: A) Selects the first element with a specific class.

19) function addNumbers(a, b) {

```
  return a + b;
}
const result = addNumbers(3, 7);
console.log(result);
```

What is the output of the code? **(JS-Medium)**

A) 10

B) "37"

C) 3 + 7

D) undefined

Correct Answer: A) 10

Explanation: The add Numbers function adds the values of a and b, so the output is 3 + 7, which is 10.

20) const numbers = [1, 2, 3, 4, 5];

```
const squaredNumbers = numbers.map(function(num) {
  return num * num;
});
console.log(squaredNumbers);
```

What will be logged to the console? **(JS-Medium)**

A) [2, 4, 6, 8, 10]

B) [1, 4, 9, 16, 25]

C) [1, 2, 3, 4, 5]

D) [1, 1, 1, 1, 1]

Correct Answer: B) [1, 4, 9, 16, 25]

Explanation: The map function is used to square each element in the numbers array, resulting in [1, 4, 9, 16, 25].

21) function outerFunction() {

```
  const outerVariable = "I am outer!";
  function innerFunction() {
    console.log(outerVariable)
}
```

```
return innerFunction;
}
const closureFunction = outerFunction();
closureFunction();
```

What will be logged to the console? **(JS-Hard)**

A) "I am inner!"

B) "I am outer!"

C) ReferenceError: outerVariable is not defined

D) undefined

Correct Answer: B) "I am outer!"

Explanation: The innerFunction has access to the outerVariable due to closure, and when closureFunction is invoked, it logs "I am outer!".

22)
```
const promise1 = new Promise((resolve) => {
  setTimeout(() => resolve('First'), 1000);
});

const promise2 = new Promise((resolve) => {
  setTimeout(() => resolve('Second'), 500);
});

Promise.race([promise1, promise2])
  .then(result => console.log(result))
  .catch(error => console.error(error));
```

What will be logged to the console? **(JS-Hard)**

A) "First"

B) "Second"

C) ["First", "Second"]

D) Error: Timeout

Correct Answer: B) "Second"

Explanation: Promise.race resolves or rejects as soon as one of the promises resolves or rejects. In this case, promise2 resolves first, so "Second" will be logged.

23) What is npm in Node.js? **(Node-Basic)**

A) Node Package Manager

B) Node Project Manager

C) New Project Maker

D) Node Package Maker

Correct Answer: A) Node Package Manager

Explanation: npm stands for Node Package Manager. It is a package manager for Node.js packages/modules. It simplifies the process of installing, updating, and managing third-party libraries or tools in a Node.js project

24) How do you handle asynchronous operations in Node.js? **(Node-Medium)**

```
function fetchData(callback) {
  setTimeout(() => {
    const data = "Hello, Node.js!";
    callback(data);
  }, 1000);
}

fetchData((result) => {
  console.log(result);
```

});

A) Using callbacks

B) Using promises

C) Using async/await

D) All of the above

Correct Answer: A) Using callbacks

Explanation: The code uses a callback function (fetchData) to handle the asynchronous operation of fetching data. Callbacks are a common way to handle asynchronous operations in Node.js.

25) Explain the event-driven architecture in Node.js. **(Node-Hard)**

A) Node.js is single-threaded and uses a synchronous event loop.

B) Node.js utilizes an event-driven, non-blocking I/O model.

C) Event-driven architecture is not applicable to Node.js.

D) Node.js relies on multiple threads for parallel processing.

Correct Answer: B) Node.js utilizes an event-driven, non-blocking I/O model.

Explanation: Node.js is built on an event-driven, non-blocking I/O model. This means that Node.js can handle a large number of concurrent connections efficiently by using a single-threaded event loop. Events are emitted, and callbacks are executed in response to various asynchronous operations, allowing Node.js to scale and handle high levels of concurrency.