1. Which image format is best suited for photographs and images with gradients due to its ability to handle millions of colors and efficient compression?

A) PNG

B) GIF

C) JPG/JPEG

D) PSD

2. Which image format supports transparency and is commonly used for web graphics and images with transparent backgrounds?

A) PSD

(B) PNG

C) JPG

D) GIF

3. What file extension is commonly associated with Photoshop plug-in files?

A) .exe

B) .dll

C) .8bf

D) .psd

4. What is the function of a layer mask?

A) To change the color of a layer

B) To hide or reveal parts of a layer

C) To increase the layer's opacity

D) To duplicate a layer

5. What is a Smart Object?

A) A rasterized layer

B) A Layer that can edited non destructively

C) A text layer

D) A layer without transparency

6. How do you display output in JavaScript?

A) Using print()

B) Using alert()

C) Using console.log()

D) Using document.write()

7. What are single-line and multi-line comments in JavaScript? How do you comment out code?

A) for single-line, /* */ for multi-line

B) <!--> for single-line, <!-- --> for multi-line

C) # for single-line, """ """ for multi-line

D) // for single-line, //for multi-line**

8. Select the basic data types in JavaScript

A) Number, String, Boolean, Object, Array

B) Number, String, Boolean, Undefined, Null, Object

C) Integer, Float, String, Boolean, Object

D) Char, String, Boolean, Object, Array

9. How do you check the data type of a variable in JavaScript?

A) typeof variable

B) instanceof variable

C) variable.type

D) checkType(variable)

10. What are arithmetic operators in JavaScript? Provide examples.

A) +,-,*,/

B) +, -, *, /, &&, ||

C) ++,--, +=, -=

D) ===,====, !=, !=

11.Which keyword is used to declare a variable in JavaScript?

a) var

b) variable

c) v

d) let

12. Which operator is used for strict equality comparison in JavaScript?

a)==

b) !=

c)===

d) !==

13. Which function is used to output data to the console in JavaScript?

a) print()

b) log()

c) display()

d console.log()

14. Which built-in method is used to convert a string to an integer in JavaScript?

a) parseInt()

b) toInteger()

c) convertToInt()

d) stringToInt()

15. What does the method querySelector() do in JavaScript?

a) It selects multiple elements based on a class name.

(b) It selects the first element based on a CSS selector.

c) It selects an element based on its ID.

d) It selects all elements of a specific tag name.

16. What are data types in JavaScript? Give examples:
JavaScript has six primitive data types:

- **Number:** e.g., `let num = 5;`
- **String:** e.g., `let name = "John";`
- **Boolean:** e.g., `let isTrue = true;`
- **Undefined:** e.g., `let x;`
- **Null:** e.g., `let y = null;`
- **Symbol (ES6)**

17. How does an interactive website differ from static and dynamic websites?

- **Static:** Fixed content, no user interaction.
- **Dynamic:** Content changes based on server-side data.
- **Interactive:** Engages users with real-time interactions using frontend technologies.

18. Which code editor do you prefer for web design and development projects, and why?
Visual Studio Code: Lightweight, powerful extensions, Git integration.

19. Can you explain the basic purpose of FTP (File Transfer Protocol) software in web development?
FTP allows the transfer of files between local systems and web servers, commonly used for uploading website files to hosting servers.

20. How do you create an HTML login form with a submit button?

```html
CopyEdit
<form action="/submit-login" method="POST">
  <label for="username">Username:</label>
```

```
  <input type="text" id="username" name="username">
  <label for="password">Password:</label>
  <input type="password" id="password" name="password">
  <button type="submit">Login</button>
</form>
```

21. When should I consider using SVG images?

When you need resolution-independent graphics, logos, or scalable images without pixelation.

22. What is an ID selector in CSS?

A selector that targets an element with a specific **unique** ID using the `#idname` syntax. Example:

```css
CopyEdit
#header {
  background-color: blue;
}
```

23. How do you apply multiple CSS classes to a single HTML element?

Separate the class names with spaces:

```html
CopyEdit
<div class="class1 class2"></div>
```

24. How do you create functions in JavaScript?

```javascript
CopyEdit
function greet() {
  console.log("Hello, World!");
}
greet();
```

25. How do you create an ordered list in HTML?

```html
CopyEdit
<ol>
  <li>Item 1</li>
  <li>Item 2</li>
</ol>
```

26. What are arrays and objects in JavaScript?

- **Array:** A list of elements. Example:

  ```javascript
  CopyEdit
  let fruits = ["apple", "banana", "cherry"];
  ```

- **Object:** A collection of key-value pairs. Example:

  ```javascript
  CopyEdit
  let person = { name: "John", age: 25 };
  ```

27. What is the purpose of the setTimeout() and setInterval() functions in JavaScript?

- **setTimeout():** Executes code after a specific delay.
- **setInterval():** Repeatedly executes code at specified intervals.

28. Explain the difference between for loop, while loop, and do-while loop:

- **for:** Runs a block of code for a specific number of times.
- **while:** Runs as long as a condition is true.
- **do-while:** Runs at least once, then continues if the condition is true.

29. How do you handle conditional statements in JavaScript?

Using `if`, `else if`, `else`, and `switch` statements.
Example:

```javascript
CopyEdit
if (x > 10) {
  console.log("Greater");
} else {
  console.log("Smaller");
}
```

30. What is the Document Object Model (DOM) in JavaScript?

The DOM represents the structure of an HTML document as a tree of objects, allowing JavaScript to dynamically manipulate and interact with web content.