**Here are 20 multiple-choice questions on JavaScript with answers:**

**1. What is the correct way to include an external JavaScript file?**

**a) <script src="script.js"></script>**

**b) <js src="script.js"></js>**

**c) <link href="script.js"></link>**

**d) <script href="script.js"></script>**

**Answer: a**

**2. Which built-in method returns the length of a string in JavaScript?**

**a) length()**

**b) size()**

**c) count()**

**d) getSize()**

**Answer: a**

**3. What is the correct way to declare a JavaScript variable?**

**a) variable x;**

**b) x = 5;**

**c) var x;**

**d) int x;**

**Answer: c**

**4. What is the output of the following code: console.log(typeof null);**

**a) null**

**b) Undefined**

**c) Object**

**d) Number**

**Answer: c**

**5. Which operator is used for strict equality checking in JavaScript?**

**a) ==**

**b) !=**

**c) ===**

**d) !==**

**Answer: c**

**6. What is the result of 5 + "5" in JavaScript?**

**a) 10**

**b) 55**

**c) 5 + "5"**

**d) Error**

**Answer: b**

**7. The pop() method in JavaScript is used for:**

**a) Adding an element to the end of an array**

**b) Removing the first element of an array**

**c) Removing the last element of an array**

**d) Reversing the order of elements in an array**

**Answer: c**

**8. Which function is used to parse a string and return an integer in JavaScript?**

**a) parseInt()**

**b) parseFloat()**

**c) Math.round()**

**d) Math.floor()**

**Answer: a**

**9. What does the typeof operator in JavaScript return for an array?**

**a) Array**

**b) object**

**c) Array object**

**d) undefined**

**Answer: b**

**10. What does the map() method do in JavaScript?**

**a) Adds an element to an array**

**b) Removes an element from an array**

**c) Creates a new array with the results of calling a function for every array element**

**d) Sorts the elements of an array in ascending order**

**Answer: c**

**11. What is the scope of a global variable in JavaScript?**

**a) Local to a function**

**b) Local to a block**

**c) Local to an object**

**d) Global throughout the program**

**Answer: d**

**12. Which method is used to remove whitespace from both ends of a string in JavaScript?**

**a) trim()**

**b) remove()**

**c) delete()**

**d) clean()**

**Answer: a**

**13. Which event is triggered when a user clicks on an HTML element?**

**a) onclick**

**b) onhover**

**c) ondrag**

**d) ontype**

**Answer: a**

**14. What is the purpose of the 'new' keyword in JavaScript?**

**a) To allocate memory for a variable**

**b) To create a new function**

**c) To declare a new object instance**

**d) To define a new variable**

**Answer: c**

**15. What is the output of the following code: console.log(2 + 2 + "2");**

**a) 22**

**b) 42**

**c) 222**

**d) Error**

**Answer: b**

**16. Which method is used to stop the execution of a function in JavaScript?**

**a) halt()**

**b) exit()**

**c) return()**

**d) stop()**

**Answer: c**

**17. What is the purpose of the 'this' keyword in JavaScript?**

**a) It refers to the current HTML document**

**b) It refers to the global window object**

**c) It refers to the current object**

**d) It refers to the parent object**

**Answer: c**

**18. How do you declare a JavaScript function named "myFunction"?**

**a) function = myFunction()**

**b) function myFunction()**

**c) myFunction()**

**d) var myFunction()**

**Answer: b**

**19. What is the output of the following code: console.log(2 \* "3");**

**a) 5**

**b) 6**

**c) "6"**

**d) Error**

**Answer: b**

**20. Which method is used to add new elements to the beginning of an array in JavaScript?**

**a) push()**

**b) unshift()**

**c) concat()**

**d) prepend()**

**Answer: b**

**Web design and development principles** are a set of guidelines and best practices that help create effective, user-friendly, and visually appealing websites. Here are some key principles to consider:

1. User-centered Design: Prioritize the needs and goals of your target audience when designing and developing your website. Ensure it is easy to navigate, provides clear information, and offers a positive user experience.

2. Responsive Design: Design and develop a website that adapts to different devices and screen sizes, ensuring it looks and functions well on desktop computers, laptops, tablets, and smartphones.

3. Simplicity: Keep your website clean, uncluttered, and easy to understand. Use clear headings, concise text, and intuitive navigation menus to make it user-friendly.

4. Visual Hierarchy: Use visual cues (like font size, color, and spacing) to create a clear hierarchy and guide users' attention towards the most important elements. Make sure important information is prominent and easily distinguishable.

5. Consistency: Maintain consistency in design elements such as colors, fonts, button styles, and layout throughout your website. This creates a cohesive and professional look and helps users navigate and understand your content easily.

6. Accessibility: Design your website to be accessible to people with disabilities. Follow web accessibility standards (such as WCAG guidelines) to ensure all users can access and interact with your content.

7. SEO-Friendly: Optimize your website for search engines to improve visibility and organic traffic. Use proper heading structure, relevant keywords, descriptive URLs, and optimize image alt tags.

8. Fast Loading Time: Optimize your website's performance by minimizing file sizes, using optimized images, and leveraging caching techniques. A fast-loading website improves user experience and SEO.

9. Mobile-first Approach: Design and develop your website with a mobile-first mindset, considering the increasing number of mobile users. Design the mobile experience first and adapt it to larger screens afterward.

10. Test and Iterate: Continuously test your website across different devices, browsers, and screen sizes to ensure compatibility and identify areas for improvement. Regularly gather user feedback and make iterative updates based on it.

By following these principles, you can create a well-designed and functional website that effectively serves its purpose and delivers a positive user experience.