Machine-based interview questions JavaScript

Machine-based interview questions often focus on practical coding skills and problem-solving abilities. Here are 30 JavaScript machine-based interview questions you might encounter as a MERN full-stack developer:

1. \*\*Implement a function to reverse a string in JavaScript.\*\*

2. \*\*Write a function to check if a given number is a palindrome.\*\*

3. \*\*Create a function that returns the factorial of a number using recursion.\*\*

4. \*\*Implement a function to check if two strings are anagrams of each other.\*\*

5. \*\*Write a function to find the longest common prefix among an array of strings.\*\*

6. \*\*Develop a function to remove duplicates from an array.\*\*

7. \*\*Create a function that flattens a nested array.\*\*

8. \*\*Write a function to merge two sorted arrays into one sorted array.\*\*

9. \*\*Implement a function to find the intersection of two arrays.\*\*

10. \*\*Develop a function that returns the nth Fibonacci number using memoization.\*\*

11. \*\*Write a function to find the first non-repeating character in a string.\*\*

12. \*\*Implement a function to check if a string contains balanced parentheses.\*\*

13. \*\*Create a function to calculate the sum of all numbers in a nested array.\*\*

14. \*\*Write a function to rotate an array by `k` positions.\*\*

15. \*\*Implement a function to find the maximum depth of a binary tree.\*\*

16. \*\*Develop a function to convert a callback-based function to a promise-based one.\*\*

17. \*\*Write a function to debounce a given function.\*\*

18. \*\*Create a function to throttle a given function.\*\*

19. \*\*Implement a function to deep clone an object.\*\*

20. \*\*Write a function to find the missing number in a given array of numbers from 1 to n.\*\*

21. \*\*Develop a function to find the largest sum of any contiguous subarray.\*\*

22. \*\*Create a function that implements a basic version of `Array.prototype.map()`.\*\*

23. \*\*Write a function that implements a basic version of `Array.prototype.filter()`.\*\*

24. \*\*Implement a function that calculates the power of a number using recursion.\*\*

25. \*\*Develop a function that checks if a given string is a valid JSON.\*\*

26. \*\*Create a function to convert an array of objects into an object grouped by a specified key.\*\*

27. \*\*Write a function to implement binary search on a sorted array.\*\*

28. \*\*Implement a function to find the common elements in three sorted arrays.\*\*

29. \*\*Create a function to calculate the depth of a nested object.\*\*

30. \*\*Write a function to determine if a given year is a leap year.\*\*

These questions are designed to test your ability to solve common programming problems using JavaScript. They assess your understanding of algorithms, data structures, and JavaScript-specific concepts.