# Test Your JavaScript

**JS** Knowledge 2 How many questions about JavaScript can you answer? JavaScript Questions with Answers

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#### Advanced JavaScript Concepts:

## Explain the concept of event delegation in JavaScript.

Answer: Event delegation allows attaching a single event listener to a parent element and handling events triggered by child elements.

#### What is throttling and debouncing in JavaScript and how are they different?

Answer:

Throttling: Limits the execution of a function to a specific rate.

Debouncing: Delays the execution of a function until a specified period of inactivity.

## What are memoization and dynamic programming in JavaScript?

#### Answer:

- Memoization: Caches the results of a function to avoid repeated calculations.
- Dynamic programming: Optimizes solutions by storing and reusing sub-problems.

### Explain the concept of the event loop and how it works in JavaScript.

Answer: The event loop handles javascript execution by processing events and tasks in a queue.

### What are web workers in JavaScript and how are they used?

Answer: Web workers are background threads that allow JavaScript code to run concurrently without blocking the main thread.

#### Modern JavaScript:

#### What are some popular JavaScript build tools and their functionalities?

Answer: Webpack, Rollup, Parcel. Bundling, minification, code splitting.

## What are the benefits of using virtual DOM libraries in JavaScript?

Answer: Improves performance by minimizing DOM manipulation.

### Explain the concept of state management in JavaScript applications.

Answer: Libraries like Redux and MobX help manage application state and ensure consistent data across components.

### What are progressive web apps (PWAs) and how are they built?

Answer: Offline-capable web apps that utilize service workers and manifest files.

### What is the purpose of using TypeScript with JavaScript?

Answer: Adds static typing to JavaScript, improving code clarity and preventing runtime errors.

Bonus JavaScript Questions:

#### What is curry in JavaScript and how is it used?

Answer: Curry breaks down a function into smaller functions with multiple arguments.

## Explain the concept of immutability in JavaScript.

Answer: Data cannot be modified after creation, ensuring data consistency.

#### What is the difference between class and constructor in JavaScript?

Answer: class defines the blueprint for an object, while constructor initializes the object with properties and methods.

### What are generators and iterators in JavaScript?

Answer:

Generators: Functions that can pause and resume execution.

Iterators: Objects that provide a sequence of values.

#### What are some advanced testing practices in JavaScript?

Answer: Mocking, coverage reports, end-to-end testing, TDD (Test-Driven Development).