1. What is the Node.js Event Loop?

The Event Loop is responsible for handling asynchronous operations in Node.js.
It executes callbacks when the call stack becomes empty.

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2. What is Libuv and What Role Does It Play in Node.js?

Libuv is a library used by Node.js to manage asynchronous tasks.
It handles the event loop, file system operations, and the thread pool.

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3. How Does Node.js Handle Asynchronous Operations Under the Hood?

Node.js sends time-consuming tasks to the operating system or thread pool.
When the task finishes, its callback is executed by the event loop.

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4. What is the Difference Between the Call Stack, Event Queue, and Event Loop in Node.js?

The call stack runs synchronous code, the event queue stores completed async callbacks, and the event loop moves callbacks to the call stack when it is empty.

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5. What is the Node.js Thread Pool and How to Set the Thread Pool Size?

The thread pool is used for heavy tasks like file system and crypto operations.
Its size can be set using UV_THREADPOOL_SIZE.

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6. How Does Node.js Handle Blocking and Non-Blocking Code Execution?

Blocking code stops execution until it finishes, while non-blocking code allows other operations to continue.
Node.js mainly uses non-blocking code to improve performance.