

## **JavaScript Assignment**

### **Q1. Compare var, let, and const in JavaScript. When would you use each?**

In JavaScript, variables can be declared using var, let, and const. Var is function-scoped and allows redeclaration and reassignment. Let is block-scoped and allows reassignment but not redeclaration. Const is block-scoped and does not allow reassignment, making it safest.

### **Q2. What is Hoisting in JavaScript?**

Hoisting is a JavaScript mechanism where variable declarations are moved to the top of their scope. Var variables are initialized with undefined, while let and const remain in the temporal dead zone.

### **Q3. Explain JavaScript's dynamic typing and the typeof operator.**

JavaScript is dynamically typed, meaning variables can change type at runtime. The typeof operator is used to check variable data types.

### **Q4. How can you manipulate strings in JavaScript?**

JavaScript provides methods like length, toUpperCase(), toLowerCase(), slice(), replace(), and includes().

### **Q5. Difference between null and undefined.**

Null is an intentional absence of value, while undefined means a variable has not been assigned a value.