

Question 1: What are functions in JavaScript? Explain the syntax for declaring and calling a function.

Answer:

A function is a block of code that performs a specific task.

You write the code once, and you can use (call) it again and again.

Why functions are useful?

- **Reduce code repetition**
- **Make programs easier to read**
- **Improve organization**

Syntax for Declaring a Function

```
function functionName() {  
    // code  
}
```

Syntax for Calling (Using) a Function

```
functionName();
```

Example :

```
function sayHello() {  
    console.log("Hello Everyone!");  
}
```

```
sayHello(); // calling the function
```

Question 2: What is the difference between a function declaration and a function expression?

There are **two common ways** to create functions:

1)Function Declaration

- **Starts with the function keyword**

- Can be called **before** it is written (hoisting)

Example:

```
function greet() {  
  console.log("Good Morning");  
}
```

2)Function Expression

- Function stored in a variable
- Cannot be called before defining

Example:

```
let greet = function() {  
  console.log("Good Morning");  
};
```

Question 3: Discuss the concept of parameters and return values in functions.

Parameters:

- Values **received** by the function
- Like input to a machine

Example:

```
function multiply(a, b) {  
  console.log(a * b);  
}
```

Return Value:

- Function gives **back** a result using return.

Example:

```
function add(x, y) {  
  return x + y;  
}
```

```
}
```

```
let result = add(5, 3);
```

```
console.log(result); // 8
```