**ASSINGMENT- 1**

Ques1:Create a function that accepts multiple numbers and returns their sum using the rest operator?

Ans:

function sum(...numbers) {

return numbers.reduce((total, num) => total + num, 0);

}

console.log(sum(1, 2, 3, 4, 5));

Ques2: Write a function that accepts a string and a number. If the number is not provided, the default should be 10. The function should return the string repeated that many times?

Ans:

function repeatString(str, number= 10)

{

return str.repeat(number);

}

console.log(repeatString("Hi", 3));

**Ques3**: Write a JavaScript function that uses an arrow function to find the sum of all numbers in an array?

Ans:

const sumArray = (numbers) => numbers.reduce((total, num) => total + num, 0);

console.log(sumArray([10, 20, 30]));

**Ques4**: Write a JavaScript function that demonstrates the differences between let, const, and var. Include examples of scoping issues that may occur with var and how let and const behave differently in block scope?

Ans:

function demonstrateScope() {

if (true) {

var varVariable = "I am var";

}

console.log(varVariable);

if (true) {

let letVariable = "I am let";

console.log(letVariable);

}

if (true) {

const constVariable = "I am const";

console.log(constVariable);

}

console.log(hoistedVar);

var hoistedVar = "I am hoisted";

let hoistedLet = "I am let-hoisted";

console.log("Demonstration Complete!");

}

demonstrateScope();