MERN STACK DEVELOPMENT JULY 2024
JAVASCRIPT
WEEKLY ASSIGNMENT - IV

1.Which of the following is an example of a callback function?

a) setTimeout(() => { console.log('Hello'); }, 1000);

b) let add = (a, b) => a + b;

c) function greet() { return 'Hello'; }

d) console.log('Hello');

Ans) c) function greet() { return 'Hello'; }

2.What is the purpose of a Promise in JavaScript?

a) To handle synchronous operations.

b) To manage asynchronous operations.

c) To delay execution of code.

d) To log messages to the console.

Ans) b) To manage asynchronous operations.

3. What is the output of this code?

```
const double = (x) => x * 2;

const square = (x) => x * x;

const compose = (f, g) => (x) => f(g(x));

const squareOfDouble = compose(square, double);
```

```
console.log(squareOfDouble(3));
```

Ans) 36

4.What is the purpose of .then() in Promise chaining?

a) It schedules a function to be executed after the promise is resolved.

b) It immediately executes a function.

c) It rejects a promise.

d) It logs a message to the console.

Ans) a) It schedules a function to be executed after the promise is resolved.

5. Which method can be used to execute code after a Promise has been rejected?

a) .then()

b) .catch()

c) .finally()

d) .reject()

Ans) b) .catch()

6. What is the output of this code?

```
function applyOperation(a, b, operation) {
  return operation(a, b);
```

```
}

const add = (x, y) => x + y;

const subtract = (x, y) => x - y;


console.log(applyOperation(5, 3, add));

console.log(applyOperation(5, 3, subtract));
```

Ans) add = 8

Subtract = 2

7. What is a "callback function" in the context of higher-order functions?

a) A function that is called after another function has finished executing.

b) A function that is passed as an argument to another function and is executed later.

c) A function that calls another function.

d) A function that is only used in event handling.

Ans) b) A function that is passed as an argument to another function and is executed later.

8. Which of the following statements about higher-order functions is true?

a) They cannot be returned from other functions.

b) They are functions that can only operate on arrays.

c) They can take functions as arguments or return functions.

d) They are functions that can only be called once.

Ans) c) They can take functions as arguments or return functions.

9. **What is the output of the following code?**

```
const myPromise = new Promise((resolve, reject) => {
  resolve('Success!');
});

myPromise.then((message) => {
  console.log(message);
});
```

a) undefined

b) Promise { <state>: "pending" }

c) Success!

d) Error

Ans) c) Success!

10) what is the output of this code?

```
function checkNumber(num) {
   return new Promise((resolve, reject) => {
      if (num > 0) {
         resolve('Positive number');
      } else {
         reject('Negative number');
      }
   });
}

checkNumber(5)
   .then((message) => console.log(message))
   .catch((error) => console.log(error));

checkNumber(-3)
   .then((message) => console.log(message))
   .catch((error) => console.log(error));
```

Ans) 5 positive number

-3 negative number