Candidate seat No: _____

Charotar University of Science and Technology [CHARUSAT]
Faculty of Technology and Engineering
U & P U. Patel Department of Computer Engineering
Continuous Assessment Test
CE384 Advanced Web technology

Semester: 5th Sem B. Tech. (CE) **Maximum Marks: 30**
Date: 16/08/2024 (Friday) **Time: 9:30 a.m. to 10:30 a.m.**

Instructions:

(i) Make suitable assumptions and draw neat figures wherever required.
(ii) Full form of abbreviations used in paper:
R: Remember, U: Understand, AP: Apply, AN: Analyze, E: Evaluate, C: Create

	Q:1		**Answer the following questions.**	**[10]**
CO2	**R**	**1.**	A callback is _____.	01
			A) a function that is passed as an argument to another function B) a function that returns another function C) a function that is called immediately D) a function that runs synchronously	
CO2	**U**	**2.**	Which method is used to handle a fulfilled Promise?	01
			A) catch() B) finally() C) then() D) resolve()	
CO2	**U**	**3.**	**"await"** keyword that _____.	01
			A) pauses the execution of an async function and waits for the Promise to resolve B) calls a function immediately C) rejects a Promise D) makes a function synchronous	
CO1	**AP**	**4.**	. How do you add a method to an existing prototype?	01
			A) ClassName.prototype.methodName = function() {} B) ClassName.methodName = function() {} C) prototype.ClassName.methodName = function() {} D) ClassName.prototype = function() {}	
CO2	**AN**	**5.**	Analyze below code and write output.	02

```
console.log('calling...')
function readData() {
   return new Promise(resolve => {
      setTimeout(() => {
         resolve('resolved');
      }, 2000);
   });
}
```

```
function getData() {
   console.log('Wait for data...');
   readData().then(result => {
      console.log(result);
   });
}
console.log('Continue work...')
getData();
```

CO3 **AN** **6.** Analyze below code and write output. 02

```
console.log('Start');
setTimeout(() => {
        console.log('Timeout callback');
}, 1000);
console.log('End');
setImmediate(() => {
        console.log('1.process running...');
});
console.log('After start');
process.nextTick(() => {
        console.log('2.process running...');
})
console.log('Before end');
```

CO3 **U** **7.** What are the correct order of the execution of below code? 02

```
(function() {
    console.log(1);
    setTimeout(function(){console.log(2)}, 1000);
    setTimeout(function(){console.log(3)}, 0);
    console.log(4);
})();
```

Q:2 **Answer the below questions.** **[10]**

CO1 **R** **1.** **What will be the output of following code?** 02

(a)

```
function varLetMix() {
   var x = 25;
   if (true) {
      let x = 30;
   }
   console.log(x);
}
varLetMix();
```

(b)

```
let j = 5;

if (true) {
   let j = 10;
}

console.log(j);
```

CO1 **AP** **2.** Write code snippet for Array Manipulation with push, unshift, pop, and shift. 04

1. Create an empty array called "colors".
2. Add the following colors to the array using the push function: "red", "green", "blue", "yellow".
3. add "orange" to the beginning of the array.

4. remove the last color from the array.
5. remove the first color from the array

Print the array "colors"

CO2 **U, R** **3.** State with True/False. 04

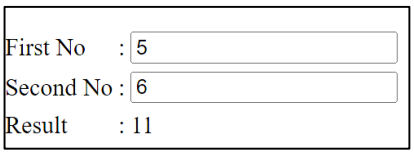
a. An array in JavaScript contains different data such as number, string, Boolean.
b. The function rest parameter syntax allows a function to accept an indefinite number of arguments as an array.
c. JavaScript classes do not support inheritance.
d. In array destructuring, the rest parameter syntax ... can be used to collect remaining elements into a single array.

Q:3 **Answer the below questions. (Any Two)** **[10]**

CO2 **E** **1.** Create an object representing a product with properties like productName, price, and category. Write functions to: 05

1. Display the product's details.
2. Apply a discount to the product price.
3. Update the product category.
4. Check if the product belongs to a specific category.

CO1 **C** **2.** Write a JavaScript function which displays result as per the below output. 05



Do not write any HTML/CSS code. Write function which extract value from the textboxes and display result in label or text box. Answer the following questions:

1. Which event will be used to call java script function?
2. Here, text boxes accept the string so how do you type cast into number?
3. Display proper error message if other input provided except number.

CO3 **E** **3.** Explain the concept of "callback hell". Solve the given callback hell code using promises and Async/await. 05

```
function fetchData(callback) { }
function processData(data, callback) { }
function saveData(processedData, callback) { }
fetchData(data => {
  processData(data, processedData => {
    saveData(processedData, status => {
      console.log(status);
    });
  });
});
```

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