MCA-I / Semester-II / JavaScript(2024-25)

Comprehensive Concurrent Evaluation -2 A

Faculty Name: Prof.Manoj Patil

Subject: JavaScript

Subject Code: EC21-2

Sr. No.	Component	Marks	Last Date of Submission
1	**Written Home Assignment**	**25**	**25th Feb. 2025**

Important Instructions:

1. The subject is evaluated on the basis of given component.
2. Assignments to be submitted in person.
3. Roll No, Student Name, Div, Contact number, Email-id, must be clearly mentioned.

Solve

1. How do date objects handle time and date information in JavaScript?
2. What are some popular JavaScript frameworks and libraries?
3. Develop an interactive web page that utilizes multiple events for user engagement.
4. How does the BOM allow JavaScript to interact with the browser window?
5. What are the key Math and Number properties available in JavaScript?

MCA-I / Semester-II / JavaScript(2024-25)

Comprehensive Concurrent Evaluation -2 B

Faculty Name: Prof.Manoj Patil

Subject: JavaScript

Subject Code: EC21-2

Sr. No.	Component	Marks	Last Date of Submission
1	**Written Home Assignment**	**25**	5th March 2025

Important Instructions:

1. The subject is evaluated on the basis of given component.
2. Assignments to be submitted in person.
3. Roll No, Student Name, Div, Contact number, Email-id, must be clearly mentioned.

Solve

1. Design a simple JavaScript program that detects when a user clicks on any part of the webpage, moves the mouse, or presses a key, and displays an alert for each type of event.

2. You are developing a website and need to get the user's screen width. Which BOM object would you use to retrieve this information and why?

3. Write a JavaScript program that validates a form with fields for the user's name, email, and phone number. The name field cannot be empty, the email must be a valid email format, and the phone number should be exactly 10 digits.

4. Explain how JavaScript objects inherit properties and methods from their prototype.

5. Design a class Shape with a method area, then create a subclass Rectangle that inherits from Shape and overrides the area method. Demonstrate the use of this class.

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Comprehensive Concurrent Evaluation -2 C

Faculty Name: Prof.Manoj Patil

Subject: JavaScript

Subject Code: EC21-2

Sr. No.	Component	Marks	Last Date of Submission
1	**Written Home Assignment**	**25**	06th March 2025

Important Instructions:

1. The subject is evaluated on the basis of given component.
2. Assignments to be submitted in person.
3. Roll No, Student Name, Div, Contact number, Email-id, must be clearly mentioned.

Solve

1. Design a JavaScript class called Car with properties like make, model, and year. Include a method to display the car's details. Create an instance of the class and demonstrate its usage.

2. Explain how JavaScript objects inherit properties and methods from their prototype.

3. What is the difference between a callback, a promise, and async/await in JavaScript with examples?

4. Explain the use case for setInterval and setTimeout , give an example of how setInterval can be used to update a webpage every 5 seconds and how setTimeout can be used to display a message after 3 seconds .

5. Explain how an event handler can be attached to a button click event in JavaScript. What is the role of the callback function with example?

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MCA-I / Semester-II / JavaScript(2024-25)

Comprehensive Concurrent Evaluation -2 D

Faculty Name: Prof.Manoj Patil

Subject: JavaScript

Subject Code: EC21-2

Sr. No.	Component	Marks	Last Date of Submission
1	**Written Home Assignment**	**25**	07th March 2025

Important Instructions:

1. The subject is evaluated on the basis of given component.
2. Assignments to be submitted in person.
3. Roll No, Student Name, Div, Contact number, Email-id, must be clearly mentioned.

Solve

1. Define the Document Object Model (DOM) and explain its role in web development. What are some of the key methods provided by the document object in JavaScript?
2. hat is JSON in JavaScript, and how is it different from JavaScript objects? List the most common methods for working with JSON data in JavaScript.
3. Explain the difference between document.getElementById(), document.getElementsByClassName(), and document.querySelectorAll(). Provide use cases for each.
4. Explain how to use the parentNode, childNodes, nextSibling, and previousSibling properties to navigate through the DOM.
5. Design a program that allows the user to add and remove list items dynamically from an unordered list. The user should be able to input new items, and each list item should have a "Remove" button that removes the item from the list.

MCA-I / Semester-II / JavaScript(2024-25)

Comprehensive Concurrent Evaluation -2 E

Faculty Name: Prof.Manoj Patil

Subject: JavaScript

Subject Code: EC21-2

Sr. No.	Component	Marks	Last Date of Submission
1	**Written Home Assignment**	**25**	08th March 2025

Important Instructions:

1. The subject is evaluated on the basis of given component.
2. Assignments to be submitted in person.
3. Roll No, Student Name, Div, Contact number, Email-id, must be clearly mentioned.

Solve

1. Explain the role of the event loop in Node.js and how it helps with non-blocking, asynchronous operations.

2. After setting up a React application using create-react-app, explain the role of the following files and directories:
   public/index.html
   src/index.js
   src/App.js

3. Explain the difference between functional components and class components in React. Provide an example of each.

4. Write a React functional component that uses the useState hook to manage a counter. The component should display the current count and have a button that increments the count by 1.

5. Write a form component in React that accepts a user's name and email. Validate the email format using regular expressions before submitting the form.