



Department of Computer Science and Engineering

Subject Name: MR22-1CS0103

Subject Code: MERN STACK WEB DEVELOPMENT

Year & Semester: II-II

QUESTION BANK

Q.No	QUESTION	MARKS	SECTION
1	What is React.js? Explain the Virtual DOM and its significance in React	8	1
2	What is JSX in React? How does it differ from regular JavaScript syntax?	8	1
3	Explain React class components with an Example	8	1
4	Explain Functional components with an Example	8	1
5	What are props in React? How are they used to pass data between components?	8	1
6	Describe how state is initialized and updated in a React component	8	1
7	How can props be passed from parent to child components? Provide examples	8	1
8	What are React hooks? Provide examples of commonly used hooks and their purposes	8	1
9	Develop a React component called Greetings that displays a simple greeting message. Render it in the App component. Pass a prop to the Greetings component to customize the greeting message.	8	1
10	Create a Counter component that displays a count and has buttons to increment and decrement the count. Implement state management within the Counter component to keep track of the count.	8	1
11	Explain Events in Reacts with Example	8	2
12	Explain onClick and onChange events with Example	8	2
13	Explain Synthetic Events with Example	8	2
14	Explain about Conditional Rendering. Explain various ways of Conditional Rendering with example	8	2

15	Provide examples of using the logical && operator for simple and concise conditional rendering	8	2
16	Explain the different ways to Style components in ReactJS	8	2
17	Explain inline Styles in React with Example	8	2
18	What is React Router? Why is React Router used in React applications?	8	2
19	Set up routing using React Router to create a simple multi-page application. Create routes for different pages (e.g., Home, About, Contact) and navigate between them	8	2
20	Create a Card component that displays content inside a styled card. Use the Card component to display Student List	8	2
21	Explain about Controlled Components in ReactJS with an example	8	3
22	Explain about Uncontrolled Components in ReactJS with an example	8	3
23	Briefly explain about how forms are created in ReactJS with an example	8	3
24	What is the purpose of forms in web development, and how are they used in React applications?	8	3
25	Create a React App that implements a registration form component in React. The form should include fields for the user to enter their name, email, and password	8	3
26	Develop a React App using functional component that implements creating a form component that allows users to submit data to an API endpoint as a POST request using React. The form should include Name and Email ID.	8	3
27	Build a React component that async fetches data from a given API endpoint and renders it as a list. API endpoint returns an array of objects, display id and name from objects as a list. API Endpoint: https://jsonplaceholder.typicode.com/users .	8	3
28	Describe the process of form validation in React, including both client-side and server-side validation	8	3
29	What are controlled components in React forms, and why are they preferred over uncontrolled components?	8	3
30	Discuss the use of the useState hook in managing form state in React.	8	3
31	Explain about RESTful API, and How do you handle HTTP methods in ExpressJS	8	4
32	Create Node.js Express App and Create API methods to get data from MongoDB collection using both Get and Post Methods.	8	4
33	a). Describe the role of npm in Node.js development b). Explain about the NodeJS modules.	8	4

34	What is Express.js and why is it commonly used with Node.js?	8	4
35	What is MongoDB. What are the features of MongoDB	8	4
36	Differentiate between MongoDB and RDBMS	8	4
37	What are CRUD Operations in MongoDB	8	4
38	a. What are MongoDB documents and collections. b. What syntax is used to create and drop a collection in MongoDB?	8	4
39	What is routing in Express JS and how do you implement it?	8	4
40	Develop a Node.js Express App and write CRUD methods for Students Collection in MongoDB database	8	5
41	How does React interact with Express in a MERN stack application?	8	5
42	What are the advantages of using Axios or Fetch for making API calls in React?	8	5
43	Build a React App to fetch and display Students List from Node.js Express API.	8	5
44	How do you handle asynchronous operations when making API calls in React?	8	5
45	What is CORS and how does it affect communication between React frontend and Express backend?	8	5
46	How do you handle error responses from API calls in React?	8	5
47	Can you describe the process of setting up user authentication in a MERN stack application?	8	5
48	What is JWT authentication and how is it implemented in Express for user authentication?	8	5
49	How can you restrict access to certain routes or resources based on user authentication status in Express?	8	5
50	Develop a React App with Sign-up & Login Components and implement Session Management using Cookies.	8	5