Sample practice Questions for WE Lab Exam

(NodeJs, ReactJs, MongoDB, ExpressJs, XML)

1. Create a Node.js server that responds with either HTML or plain text, and logs "Server running on http://localhost:PORT" to the console.
2. Write a Node.js program that defines custom modules for arithmetic operations (add, subtract, multiply, divide). Import these modules into another file to create a simple calculator.
3. Write a Node.js program to read data from an existing file, display the content on the console, and then write new data into the same file.
4. Create a server using Express.js to handle client requests. Use the **GET** method to send different responses based on the route:

- If the route is /, send general information to display on the browser.
- If the route is /books, send book-related information to display on the browser.

5. Create Mongo dB Schema using mongoose module and insert data into database.
6. Create Mongo dB Schema using mongoose module and Find All data from
   data base and display on browser
7. Create Mongo dB Schema using mongoose module and find first data from
   data base and display on the browser
8. Create a React application that renders a single HTML element and a component containing multiple elements.
9. Create a React application that imports and applies CSS to style components.
10. Create a MongoDB schema using the Mongoose module and insert data into the database.
11. Create a simple functional component that displays your name and age.
12. Create a **Single Page Application (SPA)** using React that includes:

- A **Navbar** with at least two links (Home and About).
- A **Home** component that displays a welcome message.
- An **About** component that displays some information about the app.

13. Write a React program using the useState hook to manage and update the state in a functional component.
14. Implement a Single Page Application (SPA) for a Blog Platform using React. Navigation: Home Page, Blog Posts Page, About Page, Contact Page.
15. Create a Single Page Application (SPA) for a Recipe Sharing Website using React.

    Navigation: Home Page, Recipe List Page, Add Recipe Page, About Page.

16. Create a React component and apply an external CSS file to style it.

- Import the CSS file into the component.
- Apply styles to elements inside the component using the imported CSS.

17. Create a Node.js application that displays "Hello, World!" in the console when executed.
18. Implement CRUD operations (Create, Read, Update, Delete) using the fs module in

Node.js.
19. Write an XML document that represents a list of books. Each book should have the following information: title, author, and year of publication. Also write DTD for the same.
20. Create an XML document with at least three items. Each item should have an ID, name, and price. Also write DTD for the same.

Note:

Exam Structure:

1. **Question 1**: Based on HTML, CSS, JavaScript, and XML where you will need to **demonstrate execution** of your code.
2. **Question 2**: Based on React, Node, Express, MongoDB where you are required to **write proper executable code**.