**SKCT – React – CIA2 QB**

**Part - A**

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|  | Explain the importance of React error messages, and how can they assist in debugging? |
|  | Describe the role of shouldComponentUpdate method in performance optimization. |
|  | Write the difference between context and context API. |
|  | Explain the purpose of the <BrowserRouter> component in React Router. |
|  | Explain conditional rendering in react. |
|  | Explain Axios Interceptors & Instance. |
|  | State the purpose of the useState hook in React and furnish an illustrative example. |
|  | Give a short note about redux-thunk. |
|  | Describe the concept of "form validation" in React and explain how it contributes to a better user experience. |
|  | Elaborate on the necessity for using Forms in React applications. |
|  | Explain the purpose of using React Error Boundaries in a React application. |
|  | Explain the role of getSnapshotBeforeUpdate method. |
|  | Discuss why do we use high-order components. |
|  | Explain the purpose of the Link component in React Router. |
|  | Write a short note on axios |
|  | Explain Axios And their Advantage |
|  | Outline the functionality of the useEffect hook in React and offer a practical use case. |
|  | Give an example for async action in redux-thunk |
|  | Create a parent component (App) that utilizes the Dropdown component. Illustrate the usage of the Dropdown component within the parent component. |
|  | List the major components in react redux and the use cases for them. |

**Part – B**

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|  | Explain the concept of error handling using the try...catch statement. Provide a practical code to demonstrate. |
|  | Discuss how do you optimize React performance using lifecycle methods. |
|  | Describe the React context API and Explain how to Get Started with the Context API along with an example. |
|  | Explain how to handle form submission in React with an Example. |
|  | Give a brief explanation about Http request - POST, DELETE, UPDATE with example using axios. |
|  | Write code for handling errors when fetching data from a dummy url by using the http post method. |
|  | Construct a React component utilizing the useState and useEffect hooks to retrieve and exhibit data from an API. |
|  | Implement Cart functionality with Redux. |
|  | Describe the process of creating a custom dynamic input component in React. Provide an example scenario where such a component would be beneficial, and explain how it can be implemented to handle varying input requirements. |
|  | Create a react app to validate a login form using hooks and discuss the role of those hooks in the application |
| 1. 11 | Describe the concept of an Error Boundary in React and provide a practical code example illustrating how Error Boundaries can be implemented to handle errors in a React component. |
| 1. 12 | Explain the different phases of React component lifecycle. |
| 1. 13 | Briefly discuss on the Higher-Order Component Structure and Explain how to Use Higher-Order Components in React along with an example. |
| 1. 14 | Discuss the importance of routing in React applications. Provide a comprehensive explanation of React Router and demonstrate its usage in a practical scenario. Include code examples to illustrate key concepts such as route rendering, navigation, and parameter handling. |
| 1. 15 | Explain different types of conditional rendering used in react with example. |
| 1. 16 | Explain axios, and give Example of axios to send state to Dummy url with help of http get method. |
| 1. 17 | Develop a React application for theme switching, employing the useContext hook for global state management. |
| 1. 18 | Write an TODO application using the API Endpoint with AXIOS |
| 1. 19 | Discuss the importance of form validation in web applications and how it enhances user experience. Provide an example in React demonstrating a form validation technique. |
| 1. 20 | Elaborate on the necessity for using Forms in React applications. |