1. What are the various ways of conditional rendering in React?

React supports multiple ways for conditional rendering:

If-else statements

Ternary operator (condition ? true : false)

Logical AND (condition && <Component />)

Element variables to store JSX and render conditionally

2. How do you render multiple components in React?

Multiple components can be rendered together by wrapping them in a parent element like a <div> or using React.Fragment or shorthand <> </> to avoid adding extra nodes to the DOM.

3. What is a list component in React?

A list component in React is used to render a collection of data items using the map() function. Each item is typically returned as a JSX element, often wrapped in <li>, <div>, or custom components.

4. What are keys in React applications?

Keys are unique identifiers used by React to keep track of list items during re-rendering. They help improve performance and prevent bugs by allowing React to detect which items changed, were added, or removed.

5. How do you extract components with keys in React?

When mapping a list to components, it's best practice to extract each item into its own component and assign a unique key prop to that component from the parent loop to help React manage its DOM efficiently.

6. What is map() in React and how is it used?

map() is a JavaScript array method commonly used in React to iterate over arrays and render elements or components. For example:

items.map(item => <li key={item.id}>{item.name}</li>)