# React MCQ

**Topics :** React JS
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## React Basics:

1. **What is React?**

   - A. A programming language
   - B. A JavaScript library for building user interfaces
   - C. A CSS preprocessor
   - D. A server-side scripting language

   **Answer: B. A JavaScript library for building user interfaces**

2. **What does JSX stand for?**

   - A. JavaScript XML
   - B. JavaScript Extension
   - C. JSX doesn't stand for anything
   - D. Java XML Syntax

   **Answer: A. JavaScript XML**

3. **Which method is used to render a React element into a DOM element?**

   - A. `renderDOM`
   - B. `mount`
   - C. `renderElement`
   - D. `ReactDOM.render`

   **Answer: D. `ReactDOM.render`**

4. **In React, what is the purpose of `setState`?**

   - A. To set the initial state of a component
   - B. To update the state of a component
   - C. To get the current state of a component
   - D. To remove a component from the state

   **Answer: B. To update the state of a component**

5. **What is the Virtual DOM used for in React?**

   - A. To create a virtual representation of the browser
   - B. To store component styles
   - C. To improve performance by updating the actual DOM more efficiently
   - D. To handle asynchronous events

   **Answer: C. To improve performance by updating the actual DOM more efficiently**

## Component Lifecycle:

6. **Which lifecycle method is called after a component renders for the first time?**

   - A. `componentWillMount`
   - B. `componentDidMount`
   - C. `componentWillUpdate`
   - D. `componentDidUpdate`

   **Answer: B. `componentDidMount`**

7. **In class components, which method is used to update the state based on props changes?**

   - A. `componentDidMount`
   - B. `componentDidUpdate`
   - C. `componentWillReceiveProps`
   - D. `componentWillUpdate`

   **Answer: C. `componentWillReceiveProps`**

## Hooks:

8. **Which hook is used for side effects in functional components?**

   - A. `useEffect`
   - B. `useSideEffect`
   - C. `useAsyncEffect`
   - D. `useLifecycle`

   **Answer: A. `useEffect`**

9. **What is the purpose of the `useState` hook?**

   - A. To define state in class components
   - B. To fetch data from an API
   - C. To manage state in functional components
   - D. To create a global state

**Answer: C. To manage state in functional components**

## Props and State:

10. **What is the key difference between state and props in React?**

    - A. State is used for internal component data, while props are used for communication between components.
    - B. State is immutable, while props are mutable.
    - C. State is passed down from parent components, while props are defined within a component.
    - D. State is used only in class components, while props are used in functional components.

    **Answer: A. State is used for internal component data, while props are used for communication between components.**

11. **In React, how can you pass data from a parent component to a child component?**

    - A. Using the `setState` method
    - B. Using the `props` attribute
    - C. Using the `state` attribute
    - D. Using the `render` method

    **Answer: B. Using the `props` attribute**

## React Router:

12. **What is React Router used for?**

    - A. State management in React applications
    - B. Handling routing and navigation in React applications
    - C. Managing API requests
    - D. Styling React components

    **Answer: B. Handling routing and navigation in React applications**

13. **Which component is used to define a route in React Router?**

    - A. `Router`
    - B. `Switch`
    - C. `Route`
    - D. `Link`

    **Answer: C. `Route`**

## Redux:

14. **What is Redux used for in a React application?**

    - A. Styling React components
    - B. Managing global state
    - C. Handling routing and navigation
    - D. Fetching data from an API

    **Answer: B. Managing global state**

15. **What is an action in Redux?**

    - A. A plain JavaScript object describing a change in state
    - B. A function that calculates the next state
    - C. A middleware for handling side effects
    - D. A component in a Redux application

    **Answer: A. A plain JavaScript object describing a change in state**

## Higher-Order Components (HOC):

16. **What is a Higher-Order Component (HOC) in React?**

    - A. A component with a higher number of children
    - B. A function that takes a component and returns a new component with enhanced features
    - C. A component with a higher level of state
    - D. A component that renders other components

    **Answer: B. A function that takes a component and returns a new component with enhanced features**

## React Context:

17. **What is React Context used for?**

    - A. Managing global state
    - B. Styling React components
    - C. Handling routing and navigation
    - D. Creating higher-order components

    **Answer: A. Managing global state**

18. **How can you consume a React Context in a functional component?**

    - A. Using the `this.context` property

- B. Using the `useContext` hook
- C. Using the `Consumer` component
- D. Using the `connect` function

**Answer: B. Using the `useContext` hook**

# Portals:

19. **What is a React Portal used for?**

   - A. Handling API requests
   - B. Rendering components outside the normal component hierarchy
   - C. Managing global state
   - D. Animating React components

   **Answer: B. Rendering components outside the normal component hierarchy**

# Testing:

20. **Which testing library is commonly used for testing React components?**

   - A. Jest
   - B. Mocha
   - C. Jasmine
   - D. Enzyme

   **Answer: A. Jest**