**SMMPISR -BScCS**

**Semester-IV**

**Unit-2 (React.js)**

**Sample fill in the blanks**

**1. React Components and JSX**

**Question:**  
In React, a component is a JavaScript function or class that returns a \_\_\_\_\_\_\_\_\_\_, which is a tree of React elements describing how the UI should appear.

**Answer:**  
JSX

**2. React State**

**Question:**  
The \_\_\_\_\_\_\_\_\_\_ hook is used to add state to a functional component in React.

**Answer:**  
useState

**3. React Lifecycle Methods**

**Question:**  
In a class-based React component, the \_\_\_\_\_\_\_\_\_\_ method is called once, immediately after the component is added to the DOM.

**Answer:**  
componentDidMount

**4. React Props**

**Question:**  
Props are passed from a parent component to a child component. Props are \_\_\_\_\_\_\_\_\_\_, meaning they cannot be modified by the child component.

**Answer:**  
read-only

**5. React Hooks**

**Question:**  
The \_\_\_\_\_\_\_\_\_\_ hook is used to perform side effects in functional components, such as fetching data or subscribing to external events.

**Answer:**  
useEffect

**6. Event Handling in React**

**Question:**  
In React, events are handled by using the \_\_\_\_\_\_\_\_\_\_ attribute, and event handlers are written in camelCase.

**Answer:**  
onClick (or any other event name like onChange, onSubmit)

**7. Conditional Rendering**

**Question:**  
In React, to conditionally render a component or element, you can use the \_\_\_\_\_\_\_\_\_\_ operator.

**Answer:**  
ternary (or Conditional) operator (? :)

**8. React Keys**

**Question:**  
In a list of React elements, each element must have a unique \_\_\_\_\_\_\_\_\_\_ to help React identify which items have changed, been added, or removed.

**Answer:**  
key

**9. React Context API**

**Question:**  
The React Context API provides a way to share values such as the current theme or user authentication status, without having to explicitly pass props to every level of the component tree. The \_\_\_\_\_\_\_\_\_\_ component is used to define the context value.

**Answer:**  
Provider

**10. React Router**

**Question:**  
In React Router, the \_\_\_\_\_\_\_\_\_\_ component is used to define the available routes for a single page application (SPA).

**Answer:**  
Route

**11. React Forms**

**Question:**  
In a controlled component, the input element’s value is bound to a state variable using the \_\_\_\_\_\_\_\_\_\_ attribute.

**Answer:**  
value

**12. React Fragments**

**Question:**  
In React, a \_\_\_\_\_\_\_\_\_\_ is used to return multiple elements from a component without adding an extra node to the DOM.

**Answer:**  
Fragment (<></>)

**13. React UseReducer Hook**

**Question:**  
The \_\_\_\_\_\_\_\_\_\_ hook is an alternative to useState that is used for managing complex state logic in a React functional component.

**Answer:**  
useReducer

**14. React Error Boundaries**

**Question:**  
React provides a way to handle JavaScript errors in the component tree with \_\_\_\_\_\_\_\_\_\_ components.

**Answer:**  
Error Boundaries

**15. React Memoization**

**Question:**  
The \_\_\_\_\_\_\_\_\_\_ higher-order component is used to memoize a component, preventing unnecessary re-renders by comparing the current and previous props.

**Answer:**  
React.memo

**16. React Destructuring Props**

**Question:**  
In React, you can destructure props directly in the function parameter list using the syntax { keyName }, for example, { name, age } to access the name and age props. This technique is called \_\_\_\_\_\_\_\_\_\_.

**Answer:**  
Destructuring

**17. React Component Types**

**Question:**  
A functional component is a JavaScript function that takes \_\_\_\_\_\_\_\_\_\_ as its argument and returns JSX.

**Answer:**  
props

**18. React Strict Mode**

**Question:**  
React \_\_\_\_\_\_\_\_\_\_ Mode is a development-only feature that helps identify potential problems in an application by highlighting unsafe lifecycles and other issues.

**Answer:**  
Strict

**19. React useRef Hook**

**Question:**  
The \_\_\_\_\_\_\_\_\_\_ hook in React allows you to persist a value between renders without triggering a re-render, and it can also be used to access DOM elements directly.

**Answer:**  
useRef

**20. React Component Lifecycle (Functional)**

**Question:**  
In a functional component, the \_\_\_\_\_\_\_\_\_\_ hook is used to run code when the component mounts, updates, or unmounts.

**Answer:**  
useEffect

**21. React PropTypes**

**Question:**  
In React, you can define expected types for props using \_\_\_\_\_\_\_\_\_\_, a built-in validation feature, to ensure components receive the correct type of props.

**Answer:**  
PropTypes

**22. React Virtual DOM**

**Question:**  
The \_\_\_\_\_\_\_\_\_\_\_ in React is an in-memory representation of the real DOM elements, which allows React to update only the necessary parts of the DOM in a efficient manner.

**Answer:**  
Virtual DOM

**23. React Suspense**

**Question:**  
React \_\_\_\_\_\_\_\_\_\_ is a mechanism for handling the loading state of components asynchronously, especially for data fetching.

**Answer:**  
Suspense

**24. React useCallback Hook**

**Question:**  
The \_\_\_\_\_\_\_\_\_\_ hook is used to memoize a callback function so that it only changes if one of its dependencies has changed.

**Answer:**  
useCallback

**25. React useLayoutEffect Hook**

**Question:**  
The \_\_\_\_\_\_\_\_\_\_ hook is similar to useEffect, but it runs synchronously after all DOM mutations, allowing you to read layout from the DOM and trigger re-renders before the browser repaints.

**Answer:**  
useLayoutEffect