

Beginner Level (Basic Understanding)

1. What is React?
2. What are the key features of React?
3. What is JSX?
4. What is the difference between a component and an element in React?
5. What are functional components vs class components?
6. How do you create a React app?
7. What is create-react-app?
8. How does the virtual DOM work in React?
9. What are props in React?
10. What is state in React?

Intermediate Level (Core Concepts)

11. What is the difference between props and state?
12. What is lifting state up in React?
13. What are controlled and uncontrolled components?
14. What are React Hooks?
15. Explain useState and useEffect hooks.
16. What is the purpose of useRef?
17. What is the useContext hook and how does it work?
18. What is prop drilling and how do you avoid it?
19. How do you handle forms in React?
20. What are keys in React and why are they important?

React Lifecycle

21. What are the different phases of a React component lifecycle?
22. What are lifecycle methods in class components?

23. What is the use of `componentDidMount()`?

24. How do you handle side effects in functional components?

25. How does cleanup work in `useEffect`?

Advanced React

26. What is React Context API and how is it used?

27. What is Redux? How is it used with React?

28. What are higher-order components (HOC)?

29. What are render props?

30. What is the difference between `useMemo` and `useCallback`?

31. What is reconciliation in React?

32. How does React handle reconciliation for lists?

33. What is React Suspense?

34. What is code splitting in React?

35. What is lazy loading and how is it implemented?

React Routing

36. What is React Router?

37. What are the different types of routers in React Router v6?

38. How do you handle dynamic routing?

39. How do you pass data through routes?

40. What is the difference between `<Link>` and `<a>` tag in React?

State Management

41. What are the different ways to manage state in React?

42. What are atoms/selectors in Recoil?

43. When should you use Redux over Context API?

44. What is the difference between local, global, and derived state?

Performance Optimization

45. What are some techniques to optimize performance in React?

46. What is React.memo?

47. What is the difference between React.memo and useMemo?

48. How does key help in performance?

49. How do you prevent unnecessary re-renders?

Testing in React

50. What tools do you use for testing React components?

51. What is Jest?

52. What is React Testing Library?

53. How do you write unit tests for components?

54. How do you test user interaction?

API Integration

55. How do you fetch data in React?

56. What is the difference between axios and fetch?

57. How do you handle async/await with useEffect?

58. How do you cancel API requests in React?

Build & Deployment

59. What is the role of Webpack in React?

60. What are environment variables in React?

61. How do you deploy a React app?

62. What is the purpose of .env file?

Conceptual & Scenario-Based

- 63. When would you use a class component over a functional component?
- 64. What is the difference between SSR, CSR, and SSG in the context of React?
- 65. How do you implement authentication in React?
- 66. How do you handle 404 pages in React Router?
- 67. How do you structure a large React project?

Security in React

- 68. How do you protect routes in React?
- 69. What is XSS and how do you prevent it in React?
- 70. What is the role of dangerouslySetInnerHTML?