

## 1. Introduction to ReactJS

1. React was developed by which company?
  - A) Google
  - B) Facebook ☒
  - C) Microsoft
  - D) Apple
2. What is JSX?
  - A) A data format
  - B) A CSS preprocessor
  - C) JavaScript XML ☒
  - D) A JSON parser
3. What type of library is React?
  - A) Backend framework
  - B) UI Library ☒
  - C) Database library
  - D) Server framework
4. Which of the following is a feature of React?
  - A) One-way data binding ☒
  - B) Two-way data binding
  - C) MVC pattern
  - D) Direct DOM manipulation
5. What is the virtual DOM?
  - A) Real DOM
  - B) DOM tree in the database
  - C) Lightweight copy of real DOM ☒
  - D) DOM used in server-side rendering

## 2. Array and Object Handling

6. Which method creates a new array with all elements that pass the test?
  - A) map()
  - B) filter() ☒
  - C) reduce()
  - D) forEach()

7. What does the spread operator do?
- A) Compress objects
  - B) Merge objects/arrays ☒
  - C) Copy references
  - D) Delete properties
8. What will `[1, 2, 3].map(x => x * 2)` return?
- A) `[2, 4, 6]` ☒
  - B) `[1, 2, 3]`
  - C) Error
  - D) Undefined
9. Which method reduces an array to a single value?
- A) `filter()`
  - B) `map()`
  - C) `reduce()` ☒
  - D) `splice()`
10. What keyword is used for object destructuring?
- A) `const` ☒
  - B) `let`
  - C) `var`
  - D) `function`

### 3. React Environment Setup

11. What does NPM stand for?
- A) Node Process Manager
  - B) Node Package Manager ☒
  - C) Network Package Manager
  - D) None of the above
12. What command is used to create a React app?
- A) `react-create-app`
  - B) `npm new react`
  - C) `npx create-react-app` ☒
  - D) `node start react`

13. Which editor is commonly used for React development?

- A) Notepad
- B) VS Code ☒
- C) Atom
- D) Dreamweaver

14. What is the extension for JSX files?

- A) .js
- B) .jsx ☒
- C) .html
- D) .json

15. Which tool is used to debug React apps?

- A) React DevTools ☒
- B) Firebase
- C) Redux Toolkit
- D) Babel

## 4. JSX and Rendering

16. JSX must return how many root elements?

- A) 0
- B) 1 ☒
- C) 2
- D) Many

17. How do you add comments in JSX?

- A) // comment
- B) <!-- comment -->
- C) {/\* comment \*/} ☒
- D) # comment

18. Which is a valid JSX attribute?

- A) class
- B) for

- C) className ☒
- D) labelFor

19. JSX is compiled to:

- A) HTML
- B) JavaScript ☒
- C) JSON
- D) TypeScript

20. What is the purpose of rendering in React?

- A) Change styles
- B) Update DOM ☒
- C) Connect API
- D) Compile JSX

## 5. Components and Props

21. Props are:

- A) Mutable
- B) Read-only ☒
- C) Writable
- D) Class methods

22. What is a component in React?

- A) A CSS style
- B) A UI building block ☒
- C) A JavaScript method
- D) A HTML element

23. A functional component is written as:

- A) function MyComponent() ☒
- B) class MyComponent
- C) let MyComponent
- D) const = Component

24. State can be modified using:

- A) props
- B) setState ☒
- C) useEffect
- D) reducer

25. Which lifecycle method is available in class components?

- A) useEffect
- B) componentDidMount ☒
- C) onStart
- D) onRender

## 6. Hooks

26. Which hook is used for state in function components?

- A) useEffect
- B) useState ☒
- C) useRef
- D) useMemo

27. useEffect is used for:

- A) Styling
- B) Side effects ☒
- C) Props change
- D) Rendering

28. What does useContext do?


- A) Pass data via props
- B) Access context value ☒
- C) Create store
- D) Apply themes

29. Which hook improves performance by memoizing?

- A) useMemo ☒
- B) useState
- C) useEffect

- D) useRef

30. Which hook is for dispatching actions in Redux?

- A) useState
- B) useSelector
- C) useDispatch 
- D) useReducer