

Web Programming Technologies Mock MCQ Test

Q1. Which HTTP status code indicates that the server understands the request, but it won't fulfill it due to a client error (e.g., malformed request)?

- a) 400 Bad Request
- b) 403 Forbidden
- c) 418 I'm a teapot
- d) 429 Too Many Requests

Answer: a) 400 Bad Request

Q.2 Which Apache module is responsible for providing secure Sockets Layer (SSL) and Transport Layer Security (TLS) encryption?

- a) mod_ssl
- b) mod_rewrite
- c) mod_proxy
- d) mod_perl

Answer: a) mod_ssl

Q3. Which HTML5 element is used to group related form elements together? a) <fieldset> b) <group> c) <formgroup> d) <grouping>

Answer: a) <fieldset>

Q.4 What is the purpose of the "pattern" attribute in a form input element?

- a) It specifies a regular expression that the input value must match.
- b) It sets the placeholder text that appears in the input field.

c) It defines a range of valid values for the input field.

d) It indicates the maximum number of characters allowed in the input field.

Answer: a) It specifies a regular expression that the input value must match.

Q.5 What does the CSS property "float" do?

a) It controls the spacing between elements.

b) It creates a drop shadow effect for an element.

c) It specifies how an element should float within its container.

d) It rounds the corners of an element.

Answer: c) It specifies how an element should float within its container.

Q.6 What is the correct way to link an external CSS file to an HTML document?

a) `<link href="styles.css" rel="stylesheet">`

b) `<style src="styles.css"> </style>`

c) `<style link="styles.css"> </style>`

d) `<css href="styles.css"> </css>`

Answer: a) `<link href="styles.css" rel="stylesheet">`

Q.7 Which of the following methods is used to remove the last element from an array in JavaScript?

a) `pop()`

b) shift()

c) slice()

d) remove()

Answer: a) pop()

Q.8 Which of the following is the correct way to create a new object in JavaScript using the constructor pattern?

a) const obj = { key: value };

b) const obj = Object.create(prototypeObj);

c) function MyClass() {} const obj = MyClass();

d) function MyClass() {} const obj = new MyClass();

Answer: d) function MyClass() {} const obj = new MyClass();

Q.9 Which keyword is used to create a new class in JavaScript?

a) create b) new c) class d) constructor

Answer: c) class

Q.10 Which principle of OOP states that objects can inherit properties and behavior from other objects?

a) Abstraction

b) Polymorphism

c) Inheritance

d) Encapsulation

Answer: c) Inheritance

Q.11 What is Object-Oriented Programming (OOP) in JavaScript?

- a) A programming paradigm that focuses on using functions to manipulate data.
- b) A programming technique that involves organizing code into objects and classes.
- c) A way of writing code that avoids the use of functions and relies solely on objects.
- d) A methodology for debugging JavaScript code.

Answer: b) A programming technique that involves organizing code into objects and classes.

Q.12 What is the purpose of the constructor method in a JavaScript class?

- a) To create a new object instance of the class.
- b) To define the structure and properties of the class.
- c) To perform initialization when an object is created.
- d) To create static methods for the class.

Answer: c) To perform initialization when an object is created.

Q.13 What is the purpose of the `addEventListener` method in the DOM?

- a) It adds a new element to the DOM.
- b) It registers a function to be executed when an event occurs on an element.
- c) It removes an event listener from an element.
- d) It changes the style of an element.

Answer: b) It registers a function to be executed when an event occurs on an element.

Q.14 Which DOM method is used to create a new HTML element in JavaScript?

- a) createElement()
- b) createNode()
- c) newElement()
- d) addElement()

Answer: a) createElement()

Q.15 . What is the purpose of the `form` attribute in an input element?

- a) It specifies the type of form element.
- b) It links the input element to a specific form.
- c) It defines the name of the input element.
- d) It indicates whether the input element is required.

Answer: b) It links the input element to a specific form.

Q.16 Which method is used to display a custom validation message for an invalid input element?

- a) input.setCustomMessage()
- b) input.showErrorMessage()
- c) input.setCustomValidity()
- d) input.displayMessage()

Answer: c) input.setCustomValidity()

Q.17 Which jQuery method is used to fade in an element?

- a) fadeIn()
- b) appear()
- c) show()
- d) slideDown()

Answer: a) fadeIn()

Q.18 What is the purpose of the `$.extend()` function in jQuery?

- a) It is used to create a new jQuery object.
- b) It is used to merge two or more objects into one.
- c) It is used to remove properties from an object.
- d) It is used to bind event handlers to elements.

Answer: b) It is used to merge two or more objects into one.

Q.19 Which of the following is a valid JSON data type?

- a) Date
- b) Function
- c) Undefined
- d) String

Answer: d) String

Q.20 Which method is used to parse a JSON string in JavaScript?

- a) JSON.stringify()
- b) JSON.parse()

c) JSON.serialize()

d) JSON.decode()

Answer: b) JSON.parse()

Q.21 Which Ajax framework is widely used for building rich client-side web applications?

a) jQuery

b) Django

c) Ruby on Rails

d) Flask

Answer: a) jQuery

Q.22 Which jQuery method is used to perform a POST request in an Ajax call?

a) \$.post()

b) \$.get()

c) \$.send()

d) \$.ajax()

Answer: a) \$.post()

Q.23 Which module in Node.js allows you to create a simple HTTP server?

a) `http`

b) `fs`

c) `path`

d) `url`

Answer: a) `http`

Q.24 Which command is used to start the Node.js REPL in the terminal?

- a) node start
- b) node run
- c) node repl
- d) node execute

Answer: c) node repl

Q.25 In JavaScript, which higher-order function is commonly used for iteration and executing callbacks over an array?

- a) map()
- b) filter() c
-) forEach()
- d) reduce()

Answer: c) forEach()

Q.26 Which JavaScript feature was introduced in ECMAScript 2015 (ES6) to simplify asynchronous programming with promises?

- a) async/await
- b) try/catch
- c) for/of loop
- d) arrow functions

Answer: a) async/await

Q.27 . Which keyword is used to define an asynchronous function in JavaScript?

- a) async
- b) await
- c) promise
- d) asyncFunc

Answer: a) async

Q.28 Which function is used to schedule a callback to be executed after a specified delay in milliseconds?

- a) setInterval()
- b) setDelay()
- c) setTimeout()
- d) setTimer()

Answer: c) setTimeout()

Q.29 In Node.js, which of the following is the correct way to create and export a function named `sum`?

- a) `export function sum(a, b) { return a + b; }`
- b) `module.exports = function sum(a, b) { return a + b; }`
- c) `exports.sum = function(a, b) { return a + b; }`
- d) `module.exports.sum = function(a, b) { return a + b; }`

Answer: d) `module.exports.sum = function(a, b) { return a + b; }`

Q.30 What happens if you try to import a non-existent module using the `require()` function in Node.js?

- a) The Node.js application will throw an error and crash.
- b) The `require()` function will return an empty object.
- c) The `require()` function will return `null`.
- d) The `require()` function will return `undefined`.

Answer: a) The Node.js application will throw an error and crash.

Q.31 What happens if you use the `fs.writeFile()` method on an existing file?

- a) The method will create a new file with the same name and write the data to it.
- b) The method will overwrite the existing file with the new data.
- c) The method will throw an error, as it cannot be used on existing files.
- d) The method will append the new data to the end of the file.

Answer: b) The method will overwrite the existing file with the new data.

Q.32 Which method is used to make an HTTP GET request in Node.js using the `http` module?

- a) `http.get()`
- b) `http.request()`
- c) `http.get()` and `http.request()`
- d) Neither `http.get()` nor `http.request()`

Answer: a) `http.get()`

Q.33 Which method is used to send a JSON response to the client in Express.js?

a) `res.sendJSON()`

b) `res.json()`

c) `res.send(json)`

d) `res.jsonData()`

Answer: b) `res.json()`

Q.34 How do you include a partial in a Handlebars template in Express.js?

a) By using the `<include>` tag.

b) By using the `{{partial}}` tag.

c) By using the `{{include}}` tag.

d) By using the `{{> partial}}` tag.

Answer: d) By using the `{{> partial}}` tag.

Q.35 . What is the purpose of the `render()` method in a React component?

a) To update the state of the component.

b) To define the structure of the component's UI.

c) To handle side effects and API calls.

d) To access and modify the props of the component.

Answer: b) To define the structure of the component's UI.

Q.36 Which React feature allows you to pass data from a parent component to a child component?

a) State

b) Props

c) Hooks

d) Context

Answer: b) Props

Q.37 Which lifecycle method is called when a component is about to be removed from the DOM?

a) `componentDidMount`

b) `componentWillUnmount`

c) `componentDidUpdate`

d) `componentWillUpdate`

Answer: b) `componentWillUnmount`

Q.38 Which of the following is the correct way to conditionally render content in React?

a) `<Content if={condition} />`

b) `{ condition ? <Content /> : null }`

c) `<Content>{ condition }</Content>`

d) `<Content when={condition} />`

Answer: b) `{ condition ? <Content /> : null }`

Q.39 Which lifecycle method in a React component is called immediately after a component is updated with new props or state?

a) `componentWillUpdate`

b) `componentDidUpdate`

- c) `componentWillReceiveProps`
- d) `shouldComponentUpdate`

Answer: b) `componentDidUpdate`

Q.40 In React, what is the purpose of Context?

- a) To manage global state that can be accessed by any component in the application.
- b) To handle errors and exceptions in the application.
- c) To define the layout and design of the application.
- d) To control the rendering of components in the DOM.

Answer: a) To manage global state that can be accessed by any component in the application.

Q.41 What is the purpose of using the `map()` method when rendering a list of components in React?

- a) To create a new array with the results of calling a provided function on every element in the original array.
- b) To filter the elements of the original array and create a new array based on a provided condition.
- c) To loop through the elements of the original array and execute a function on each element.
- d) To convert the original array into a string with the provided separator.

Answer: a) To create a new array with the results of calling a provided function on every element in the original array.

Q.42 How do you lift state up in React?

- a) By using the `this.setState()` method in the child component to update the state in the parent component.
- b) By passing a function from the parent component to the child component as a prop, and the child component calls this function to update the state in the parent component.
- c) By using the `Redux` library to manage the state globally.
- d) By using the `React.createContext()` method to share the state between components.

Answer: b) By passing a function from the parent component to the child component as a prop, and the child component calls this function to update the state in the parent component.

Q.43 What does an Error Boundary render when an error occurs within its child component?

- a) The component tree that caused the error.
- b) The error message and stack trace in the UI.
- c) The fallback UI defined within the Error Boundary component.
- d) The default error boundary provided by React.

Answer: c) The fallback UI defined within the Error Boundary component.

Q.44 In the "Thinking in React" process, what is the final step after building the React application?

- a) Refactoring the code to make it more concise and efficient.
- b) Running unit tests to ensure the application works as expected.
- c) Optimizing the application for better performance.

d) Conducting user testing to gather feedback and make improvements.

Answer: d) Conducting user testing to gather feedback and make improvements.

Q.45 What is an action in Redux?

a) An action is a JavaScript function used to create new React components.

b) An action is a plain JavaScript object that represents an event or something that happened in the application.

c) An action is a Redux-specific syntax for defining reducers.

d) An action is a CSS class used for styling React components.

Answer: b) An action is a plain JavaScript object that represents an event or something that happened in the application.

Q.46 How do you create a new Redux store in a React application?

a) By using the `React.createStore()` function provided by React.

b) By calling the `createStore()` function from the Redux library.

c) By importing the store directly from the `redux` module.

d) By using the `this.store()` method inside the component.

Answer: b) By calling the `createStore()` function from the Redux library.

Q.47 What is the purpose of the `Provider` component in React-Redux?

a) The `Provider` component allows access to the Redux store and its data in all components.

b) The `Provider` component handles the state management of all components in the application.

- c) The `Provider` component is responsible for rendering the Redux state on the DOM.
- d) The `Provider` component is used to connect React and Redux together.

Answer: a) The `Provider` component allows access to the Redux store and its data in all components.

Q.48 What is the importance of mobile-first design in responsive web development?

- a) It prioritizes mobile devices over desktops in terms of website performance.
- b) It allows developers to focus only on mobile devices and ignore other platforms.
- c) It ensures faster load times for websites on mobile devices.
- d) It starts designing for mobile devices first and then scales up to larger screens, providing a better user experience.

Answer: d) It starts designing for mobile devices first and then scales up to larger screens, providing a better user experience.

Q.49 Which of the following is a valid way to include Bootstrap in a web page?

- a) `<bootstrap`
`href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">`
- b) `<link rel="stylesheet" href="bootstrap.min.css">`
- c) `<link rel="stylesheet"`
`href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">`
- d) `<style src="bootstrap.min.css">`

Answer: c) `<link rel="stylesheet"`
`href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">`

Q.50 What is the purpose of the "jumbotron" class in Bootstrap?

- a) To create a large, attention-grabbing header for a web page.
- b) To style tables and tabular data in a web page.
- c) To apply CSS animations to elements on a web page.
- d) To create a fixed-position footer for a web page.

Answer: a) To create a large, attention-grabbing header for a web page.