What are the differences between React's class components and functional components with hooks?  
\*

Class components allow for better performance compared to functional components

Functional components with hooks offer simpler syntax and better code organization

Class components cannot access lifecycle methods, while functional components with hooks can

Functional components with hooks cannot hold state, while class components can

What are controlled components in React and how are they different from uncontrolled components?  
\*

Controlled components rely on internal state managed by React, while uncontrolled components manage their own state

Controlled components cannot be updated by user input, while uncontrolled components can

Controlled components directly manipulate the DOM, while uncontrolled components do not

Controlled components use native HTML form elements, while uncontrolled components use custom React components

Which of the following statements about React Router DOM is true?  
\*

React Router DOM is not compatible with React applications

React Router DOM is primarily used for server-side routing

React Router DOM provides components for handling navigation and routing in React applications

React Router DOM is only used for styling components in React applications

Which of the following React Router DOM components is used to render a component based on the URL path?  
\*

Route

Link

Switch

Redirect

What is the purpose of the BrowserRouter component in React Router DOM?  
\*

It is used to define the root of the routing configuration for a React application

It is used to create a browser history object for navigation

It is used to define a static route in a React application

It is used to render a specific component based on the URL path

Which method is invoked immediately after a component is inserted into the DOM?  
\*

componentDidMount()

componentWillUnmount()

componentDidUpdate()

componentWillMount()

When does the componentDidUpdate() method get called in the React component lifecycle?  
  
\*

Before the component is unmounted from the DOM.

After the component has been rendered to the DOM and its state has changed.

Before the component is rendered to the DOM for the first time.

When the component's props are updated.

What is the purpose of the Virtual DOM in React?  
\*

It is used to directly manipulate the HTML DOM elements.

It is used to efficiently update the browser's DOM when the state of a React component changes.

It is used to store the entire state of a React component.

It is used to manage routing in a React application.

Can you pass functions as props in React?  
\*

Yes, functions can be passed as props from parent to child components in React.

No, only primitive values such as strings and numbers can be passed as props.

Yes, functions can be passed as props from child to parent components in React.

No, functions cannot be passed as props in React.

What is JSX in React.js?  
\*

A JavaScript extension for XML

A type of database

A server-side rendering technique

A programming language

Consider the following statements:  
1. The Virtual DOM is a lightweight, in-memory representation of the actual DOM  
2. React creates a virtual representation of the UI components in memory and then compares this representation  
with the actual DOM, identifying the differences.  
3. By using a Virtual DOM, React directly manipulates the real DOM, which can be slow and inefficient.  
  
Which of the above statements are incorrect  
\*

1 only

1 and 2 only

3 only

All of the above

Which of the following is NOT a way to handle events in React.js?  
\*

Inline event handlers

Using event listeners

Binding events in the constructor

Using the event tag

What is the significance of keys in React.js?  
\*

They uniquely identify elements in an array of components

They define CSS styles for components

They are used to encrypt sensitive data

They represent the version of React being used

Consider the following statements about state in ReactJs  
1. State is commonly used to manage data that changes over time, such as user input, UI state, or data fetched from an  
API.  
2. State is local to the component in which it is defined. It cannot be accessed or modified by other components unless  
passed down as props.  
3. changeState() is used to update the state  
4. State is a fundamental concept in React components. Each component in React can have its own state, which is  
managed internally by the component.  
  
Which of the above statements are true?  
\*

1 only

1,2 and 4 only

1,2 and 3

All of the above

Which of the following methods is used to include modules in Node.js?  
\*

import

require

include

use

What is the purpose of the exports object in Node.js modules?  
\*

To export the entire module

To export specific properties or methods

To import other modules

To store configuration settings

How can middleware be added to an Express.js application to execute on every request?  
\*

app.use((req, res, next) => { /\* middleware code \*/ next(); });

app.all((req, res, next) => { /\* middleware code \*/ next(); });

app.route((req, res, next) => { /\* middleware code \*/ next(); });

app.middleware((req, res, next) => { /\* middleware code \*/ next(); });

What does the await keyword do in an async function?  
\*

Pauses execution until a promise is settled and returns its result

Executes code asynchronously

Throws an error if the promise is rejected

Returns a promise immediately

What is Node.js?  
\*

A client-side JavaScript framework.

A server-side JavaScript runtime environment.

A database management system.

A CSS framework.

How do you create a simple server using the HTTP module in Node.js?  
\*

http.createServer(requestHandler).listen(port);

http.server(requestHandler).port(port);

http.createServer(port).listen(requestHandler);

http.server().port(port).listen(requestHandler);

How do you update multiple documents in MongoDB?  
\*

db.collection.update()

db.collection.updateMany()

db.collection.updateMultiple()

db.collection.updateAll()

Which method is used to read the content of a file in Node.js?  
\*

fs.readFile()

fs.getFile()

fs.read()

fs.openFile()

What is the default scope of modules in Node.js?  
\*

Global

Local to each file

Shared across all files

Static

How can you handle asynchronous operations in Node.js?  
\*

Using setTimeout

Using callbacks, Promises, or async/await

Using synchronous functions only

Using event listeners exclusively

Which phase of the Node.js event loop executes timers scheduled by setTimeout  
and setInterval?  
\*

I/O callbacks

Poll

Timers

Close callbacks

What is the purpose of the event loop in Node.js?  
\*

To manage file I/O operations.

To handle asynchronous callbacks.

To process HTTP requests.

To initialize global variables.

What is Express.js?  
\*

A front-end framework

A back-end framework

A database management system

A JavaScript compiler

Which of the following methods is used to define a route for handling GET requests in  
Express.js?  
\*

[app.post](https://www.google.com/url?q=http://app.post&sa=D&source=editors&ust=1720258614266259&usg=AOvVaw0tVl6-vcYUCR6FtbwL_Fyr)()

app.get()

app.put()

app.fetch()

What is the default port for MongoDB?  
\*

27017

8080

3306

5432

Which of the following is used to create an index on a field in MongoDB?

db.collection.ensureIndex()

db.collection.createIndex()

db.collection.addIndex()

db.collection.buildIndex()