

Test-Driven Development Using React.js and ES6

Pretest / Posttest (please circle appropriate identifier)

Name:

1. Which of the following is not true of React.js?
 - a. It must be used with MVC
 - b. It is a JavaScript library for building UIs
 - c. It is comparable to Angular Directives
 - d. It can be plugged into a framework's component technology
 - e. I don't know
2. What is the virtual DOM?
 - a. An alternate client side data structure
 - b. A local and simplified copy of the HTML DOM
 - c. A copy of the HTML DOM consistently updated in 10ms intervals
 - d. None of the above
 - e. I don't know
3. Which of the following best describe the TDD cycle?
 - a. Write a test, make it pass, refactor
 - b. Write code, write a test for the code, refactor the code
 - c. Eliminate duplication from your work to make the test pass
 - d. All of the above
 - e. I don't know
4. What is a benefit of the Virtual DOM?
 - a. It is a complex copy of the HTML DOM
 - b. Using the virtual DOM is more efficient than DOM manipulation
 - c. It slower than DOM manipulation
 - d. All of the above
 - e. I don't know
5. Which of the following describes a component?
 - a. A component has a render method
 - b. A component returns a single element or array of elements
 - c. There can be multiple instances of a component
 - d. Components should be reusable as well as composable
 - e. All of the above

6. What is a prop?
- a. A prop can be used to pass data from a parent element to a child element
 - b. A prop is a module used to support JSX
 - c. A prop is method that saves state
 - d. All of the above
 - e. I don't know
7. Which of the following is not a valid return value in React Component's render method?
- a. `return (<div><p></p></div>);`
 - b. `return [<li key="1"> item 1];`
 - c. `return "I can return a string";`
 - d. `return (<h1></h1><div><p></p><div>);`
 - e. I don't know
8. What is a declarative programming?
- a. A style of programming that focuses on instructions or steps to complete a task
 - b. A style of programming that focuses on the desired outcome as opposed to the steps
 - c. A method of programming that involves the declarative module
 - d. All of the above
 - e. I don't know
9. All the below work. But one of them was not part of ES2015. Which one is not ES2015 syntax?
- a. `import React from 'react';`
 - b. `function addEmphasis((string)=>{ return string + '!!'});`
 - c. `var PollHeader = require('./Pollheader');`
 - d. `import * as SayHello from './SayHello.js';`
 - e. I don't know

Consider the following code snippet for questions 10-13.

MyContainer.js

```
import React from 'react'
import Suggestion from './Suggestion.js'

class MyContainer extends React.Component {
  constructor() {
    super();
    this.state = {
      motivation: "Do your best!"
    };
  };
  render() {
    return (
      <div>
        <Suggestion text = {this.state.motivation} />
      </div>
    );
  }
}
```

10. Which is the best summary of the code snippet above?
- a. The state of the parent, MyContainer, becomes the prop of the child, Suggestion.
 - b. MyContainer renders Suggestion using a constructor
 - c. The state of Suggestion is a prop of MyContainer
 - d. Suggestion is a parent of MyContainer
 - e. I don't know
11. How could the Suggestion class, within its render method, access the state of MyContainer?
- a. `return(<p>{this.props.text}</p>);`
 - b. `Suggestion.className(this.props.text);`
 - c. `return(<p text="this.props.text"></p>)`
 - d. `return({this.state.text});`
 - e. I don't know
12. What is the purpose of calling `super()` in the constructor of MyContainer?
- a. Calling `super()` in a subclass runs the superclass's constructor
 - b. It creates a fantastic parent class
 - c. Calling `super()` makes the methods of the child class available to the parent class
 - d. None of the above
 - e. I don't know
13. Which of the following is a valid way of rendering MyContainer into an html container, `<div id="app"></div>`?

- a. `ReactDOM.render(<div id="MyContainer" />);`
- b. `ReactDOM.render(<App />, document.render("MyContainer"));`
- c. `ReactDOM.render(<MyContainer />, document.getElementById("app"));`
- d. `function MyContainer((div)=>{div.addContainer("react.MyContainer")});`
- e. I don't know

14. True or false: Props are passed to the child within the render method of the parent.

- a. True
- b. False
- c. I don't know

15. What is JSX?

- a. A preprocessor that adds HTML to JavaScript
- b. A preprocessor that adds XML syntax to JavaScript
- c. A postprocessor that changes JavaScript to XML
- d. None of the above
- e. I don't know

16. When can a stateless functional component be used?

- a. When the state of the object is stored with a constructor function
- b. When the component requires a `createClass` abstraction
- c. When the component state has dissolved
- d. When the component only has a render method and optional props
- e. I don't know

17. Which best describes the differences between presentational and container components?

- a. Presentational components contain no logic while containers contain logic and state
- b. Presentational components hold state and deliver it to container
- c. Presentational components wrap containers
- d. Presentational components are the same as containers
- e. I don't know

18. How should you test React components?

- a. Test whether they render and render correctly
- b. Test every possible state and or condition of the component
- c. Test the events and edge cases of the component
- d. All of the above
- e. I don't know

19. Which of the following life-cycle methods should you use for AJAX requests?

- a. `componentWillUnmount()`
- b. `componentDidMount()`
- c. `componentCannotUpdate()`
- d. `shouldComponentUpdate()`
- e. I don't know

20. True or False: React has built-in AJAX capabilities

- a. True
- b. False
- c. I don't know