**ReactJS Lab 3 – Assignment Answers**

**1. Explain React components**  
A **React component** is a self-contained, reusable piece of a user interface. Each component manages its own logic, structure, and style, and components can be composed to build complex UIs.

**2. Identify the differences between components and JavaScript functions**

| **Aspect** | **React Component** | **JavaScript Function** |
| --- | --- | --- |
| Purpose | Describes and renders UI in React | Performs logic and returns values |
| Return | JSX (React elements) | Primitive values or objects |
| Lifecycle | Can have lifecycle methods/hooks | No lifecycle methods |
| Usage | Part of React component tree | General usage in JS programs |

**3. Identify the types of components**

* **Class Components:** Defined using ES6 classes with lifecycle methods and state.
* **Function Components:** Defined using JavaScript functions, return JSX, and can use Hooks.

**4. Explain class component**  
A **class component** extends React.Component and must have a render() method. It supports state and lifecycle methods, making it useful for complex logic.

**5. Explain function component**  
A **function component** is a plain JavaScript function that returns JSX. With Hooks, function components can now handle state and side effects, making them the preferred way to write components.

**6. Define component constructor**  
In class components, the **constructor** method is used to initialize state and bind event handlers before the component is mounted.

constructor(props) {

super(props);

this.state = { name: "React" };

}

**7. Define render() function**  
The **render()** function is mandatory in a class component. It returns JSX that tells React what to display on the screen.