**ReactJS Lab 2 – Assignment Answers**

**1. Explain React components**  
A **React component** is an independent, reusable piece of UI. Each component can have its own structure, logic, and styling, and can be combined to build complex interfaces.

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

| **Aspect** | **React Component** | **JavaScript Function** |
| --- | --- | --- |
| Purpose | UI rendering in React | General logic execution |
| Return | JSX (UI elements) | Values or computation results |
| Lifecycle | Can have lifecycle methods/hooks | No lifecycle concept |
| Usage | Part of React tree | Used in any JS context |

**3. Identify the types of components**

* **Class Components:** ES6 classes that extend React.Component with lifecycle methods.
* **Function Components:** Simple functions that return JSX and can use Hooks for state and effects.

**4. Explain class component**  
A **class component** is defined as an ES6 class extending React.Component. It must implement a render() method that returns JSX. It can have state and lifecycle methods.

**5. Explain function component**  
A **function component** is a JavaScript function that returns JSX. It does not use this and traditionally had no state, but with React Hooks it can manage state and side effects.

**6. Define component constructor**  
In class components, the **constructor** method initializes the state and binds event handlers.

constructor(props) {

super(props);

this.state = { count: 0 };

}

**7. Define render() function**  
The **render()** method is required in every class component. It returns the JSX to display the UI. React will call this method whenever it needs to update the UI.