**1. Explain React Components**

React components are the basic parts of a React app. They are reusable pieces of UI (User Interface). Each component can be a small part of a web page, like a button or a header. We write them in JavaScript and they return JSX, which looks like HTML.

**2. Identify the Differences Between Components and JavaScript Functions**

| **JavaScript Function** | **React Component** |
| --- | --- |
| Normal function that returns values | Function that returns UI (JSX) |
| Can’t display anything on the screen directly | Can display content on screen |
| Doesn’t use props or state | Uses props and state to manage data |
| No JSX or rendering | Can render HTML-like code (JSX) |

In short, components are like advanced JavaScript functions made to build UI.

**3. Identify the Types of Components**

There are **two main types** of React components:

* **Class Component** – Written using ES6 classes. Can use state and lifecycle methods.
* **Function Component** – Written using functions. Simple and commonly used. Can also use state and hooks.

**4. Explain Class Component**

A class component is a React component created using a JavaScript class that extends React.Component. It has access to state, props, and lifecycle methods like componentDidMount().

Example:

import React from "react";

class Welcome extends React.Component {

render() {

return <h1>Hello from Class Component!</h1>;

}

}

**5. Explain Function Component**

A function component is a simpler way to create components using JavaScript functions. They return JSX and can use Hooks like useState.

Example:

function Welcome() {

return <h1>Hello from Function Component!</h1>;

}

**6. Define Component Constructor**

The constructor is a special method used in class components to initialize state and bind methods. It’s called only once when the component is created.

Example:

constructor(props) {

super(props);

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

}

We must call super(props) to use this.props inside the constructor.

**7. Define render() Function**

In a class component, the render() function returns the JSX (UI) to be shown on the screen. It’s required in every class component.

Example:

render() {

return <h2>This is rendered UI</h2>;

}