1. Is JSX mandatory for React?

* No. JSX is not mandatory but using jsx makes code more readable and maintainable.
* React elements and components can also be created using Reac.createElement()
* By using JSX makes it easy and readable
* JSX is a syntax extension of javascript that helps to write HTML like code

2. Is ES6 mandatory for react?

* No ES6(ECMAScript) is not mandatory its new feature introduced in javascript with new feature makes developer jobs easy.
* Some of the features are
  + Const -> to declare a constant variable which cannot be changed
  + Arrow function -> which helps us to write less code while creating functional component

Example: const Header = () =>{

//code

}

* Destructuring, Map and set data structure etc., to make developer job easier

3. What is the difference between {Title} vs {<Title/>} vs {<Title></Title>} ?

* {Title} - represent react element, react element can be rendered inside {}
* {<Title />} - JSX support self-closing tag, this represents react component, we render react component inside < /> or {< />} both are same
* {<Title></Title>} - its similar to rendering <Title />, react supports both self closing and <>

4. How can i write comments in JSX ?

Using block comment {/\* \*/}

5. What is <React.Fragment></React.Fragment> and <></>?

Both are same just to avoid creation one more node in DOM we use these. Can be used to enclose the children component. Its way to group list of childrens.

If we use div then it creates the node in the DOM structure.

6. What is virtual DOM?

The Virtual DOM is a programming concept used in JavaScript libraries and frameworks, such as React, to optimize the performance of web applications. It works by keeping a virtual representation of the actual DOM (Document Object Model) in memory, and only updating the parts of the real DOM that have changed. This allows for faster updates and smoother user interactions, as the browser does not need to re-render the entire page.

7. What is Reconciliation in react?

* Reconciliation is the process in which react updates the dom by comparing actual dom with the virtual dom using diff algorithm.
* Diff algorith is process where it compares one tree with another to check which part is changed, so that it updates only changed things
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8. What is react fiber ?

React Fiber is a new reconciliation algorithm introduced in React 16. It is a complete rewrite of the previous algorithm, designed to increase the flexibility and performance of React.

<https://www.codingninjas.com/codestudio/library/react-fiber-architecture>

9. Why do we need keys in react and what is use of it ?

* Keys in React are necessary for improving the performance of lists and help React to identify which items have changed, added, or removed.
* Keys should be unique and used when rendering dynamic elements with a map function. Without a key, React can't keep track of the identity of each item, leading to issues like re-rendering of entire list when only one item changed.

10. Can we use index as keys in react ?

Yes we can use index as keys in react but its not good approach do it, but there is better way to assign keys by using unique value from data

11. What is props in react ?

In react every components at the end is javascript function so we can pass arguments as the parameters into any functional components are called props.

12. What is config driven UI ?

* Config driven UI refers to a UI (User Interface) design approach where the appearance and behavior of the interface are defined through configuration files or code, rather than hard-coded into the application.
* This allows for greater flexibility, ease of customization and maintenance. The UI components can be defined and updated without making changes to the underlying code, enabling non-technical users to make changes to the interface without assistance from developers.