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| KONGU ENGINEERING COLLEGE, PERUNDURAI - 638 060 |
| CONTINUOUS ASSESSMENT TEST – I |
| (Regulation 2020) |

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| Month and Year | : | September2023 | Roll Number | : |  |
| Programme | : | B.Tech. | Date | : | 02.09.2023 |
| Branch | : | IT | Time | : | 2:30PM to 4:00PM |
| Semester | : | V | Duration | : | 01.30 Hours |
| Course Code | : | 20ITE03 | Max. Marks | : | 50 |
| Course Name | : | User Interface Design |  |  |  |

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| **PART - A (10 × 2 = 20 Marks)** | | | | | |
| **ANSWER ALL THE QUESTIONS** | | | | | |
| 1. | List out the advantages of React.  Component based  Simplified scripting  Faster Rendering  One-way data binding | | | CO1 | K1 |
| 2. | Outline the syntax of writing Arrow function with two parameters. Give Example.  const function name = (parameter1, parameter2) =>  {  return (statements)  }; | | | CO1 | K2 |
| 3. | Compare DOM with Virtual DOM.   |  |  | | --- | --- | | DOM | Virtual DOM | | It updates Slow | It updates fast | | It can directly update HTML | It can’t update HTML directly | | It represents the Ul of your application | It is only a virtual representation of the DOM | | Creates a new DOM if the element updates. | Update the JSX if the element update | | | | CO1 | K2 |
| 4. | Recall the purpose of render() in React.  The "ReactDOM.render()" method in React is pivotal for rendering components onto the real DOM.  It initiates the virtual DOM comparison, updates the actual DOM efficiently, and triggers  component lifecycle hooks, enabling dynamic UI updates and optimal performance. | | | CO1 | K1 |
| 5. | Write a program for creating an h1 element that displays “Hello” using JSX.  import React from 'react'  function App(){    return(      <>      <h1>Hello </h1>      </>    )  }  export default App; | | | CO1 | K3 |
| 6. | Write a program for creating an element that displays “Welcome to react” by applying inline styles.  function Sample()  {      return(        <div >          <h1 style = { {color : "blue" } } > Welcome to react </h1>        </div>            )    }    export default Sample; | | | CO1 | K3 |
| 7. | Create an array of fruits containing Apple, Mango, Orange, Melon and Grapes. Write a ReactJS program to display only the fruits name that starts with “a” using filter function.  function App()  {  const fruits = ["apple","Mango","Melon", "orange","grapes"]      return(        <div >        {fruits.filter(fruit => fruit[0]==="a")}        </div>            )  }  export default App; | | | CO2 | K3 |
| 8. | Create a component that renders an ordered list that denotes different categories of books with necessary list items.  function App()  {  <div >  <p> Books </p>  <ol>      <li> Motivation books </li>      <li> Engineering text books</li>  <li> Fiction <li>  </ol>  </div>  }  export default App; | | | CO2 | K1 |
| 9. | Specify the need for fragments in ReactJS? Give an example.  A JSX fragment is an element that doesn't create an actual DOM element but groups multiple elements together. It's useful to avoid unnecessary wrapper elements and maintain clean component structures. | | | CO2 | K2 |
| 10. | List out the parameters used in ReactDom.Render statement.   * ReactDOM.render(element, container, callback) * **Parameters**:   + **element:** This parameter expects a JSX expression or a React Element to be rendered.   + **container:** This parameter expects the container in which the element has to be rendered.   + **callback:** This is an optional parameter that expects a function that is to be executed once the render is complete. | | | CO1 | K1 |
| **Part – B (3× 10 = 30 Marks)** | | | | | |
| **ANSWER ANY THREE QUESTIONS** | | | | | |
| 11. | i) | Create a JavaScript Object to store Employee information (Employee id, Employee Name, Designation, salary) and write a functional component to display the Employee information. | (6) | CO1 | K3 |
|  | ii) | Write a JavaScript code to read an input string and display the characters at odd position of that string. | (4) | CO1 | K2 |
| 12. | i) | Illustrate the different ways of applying styles to react components. Give suitable example with necessary files. | (10) | CO1 | K2 |
| 13. | i) | Describe about functional components and class components in detail. | (5) | CO2 | K2 |
|  | ii) | Create a class component for storing product information and initialize constructor to retrieve product id. Use props to display the product information. | (5) | CO2 | K3 |
| 14. | i) | Create a ReactJS based web application for online include the necessary components. Show index.js, App.css and necessary components file with required styling features. | (10) | CO2 | K3 |
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| Bloom’s Taxonomy  Level | Remembering  (K1) | Understanding  (K2) | Applying  (K3) | Analysing  (K4) | Evaluating  (K5) | Creating  (K6) |
| Percentage | 14 | 41 | 45 |  |  |  |