END SEMESTER EXAMINATION - MARCH 2025
SEMESTER 6 : INTEGRATED M.Sc. PROGRAMME COMPUTER SCIENCE - DATA SCIENCE
COURSE : **21U6CRMCP20EL : FULL STACK PROGRAMING TECHNIQUES**
(For Regular 2022 Admission and Supplementary 2021 Admission)

Time : Three Hours   Max. Weightage : 30

PART A
Answer any 8 Questions

1. State the use of `<noscript>` tag.
2. In the style `.sel{ width:20ex; }`, state what does "ex" indicate.
3. State the use of Redux in JavaScript.
4. Interpret the meaning of the following node.js command:
   `var fs = require('fs');`
5. Write an example of a MongoDB document.
6. Write the import statement to add the React modules to a JS file.
7. State the main difference between a descendent selector and a child selector.
8. State the advantage of using express.js.
9. Records in MongoDB database are called _____.
10. Predict the output of the following JavaScript code:
```
let x = "10";
if (x == 10) {
    console.log("x is 10");
} else {
    console.log("x is not 10");
}
```

(1 x 8 = 8 Weight)

PART B
Answer any 6 Questions

11. Prepare detailed notes on the React component life cycle.
12. Write an example for creating a simple express.js app. Also explain the steps.
13. Write short notes on the heading tags.
14. Write short notes on relational and logical operators in JavaScript with an example.
15. Differentiate between `deleteMany()` and `deleteOne()` methods in MongoDB with an example for each.
16. With an example, explain how alerts are displayed in JavaScript.
17. With an example in React, explain how state values are changed based on their previous state.
18. Discuss how CSS is applied to a web page using class attributes.

(2 x 6 = 12 Weight)

PART C
Answer any 2 Questions

19. Explain the process of connecting to a MongoDB database and inserting documents from PHP.

20. Explain the following CSS concepts: (a). CSS Box Model   (b). Text and Font properties   (c). Padding and borders   (d). Colors and backgrounds.

21. Define props in React. Explain how props are handled using class components

22. Prepare detailed notes on the Document and Window object. Also explain how JavaScript can be used to access the DOM tree.

(5 x 2 = 10 Weight)