DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

(Artificial Intelligence & Machine Learning)

ACADEMIC YEAR 2023-24

QUESTION BANK

Class/Sem: Third Year/V   **Course Name: Web Computing (CSC502)**

MODULE I-Web Programming Fundamentals

1) Explain working of web Browser

2) Draw and illustrate 3-tier Web Architecture.

3) Describe HTTP protocol

4) Explain difference between HTTP & HTTPS protocol.

5) Explain TLS.

6) Describe how DNS work.

7) Explain DOM model with neat diagram

8) Explain concept of Element and attribute in XML.

9) What do you mean by JSON?

10) What is REST API?

11) Differentiate between URL & URI.

MODULE II-JAVASCRIPT

1) Explain ES6 in detail. Differentiate between ES5 & ES6.

2) Explain conditional statements in JavaScript along with examples.

3) Explain various types of loops in JavaScript with examples.

4) What are various types of Popup boxes In javascript? Explain with examples.

5) Describe various browser objects in JavaScript?

6) What are events In Js?

7) Differentiate between Parameterized and Anonymous function?

8) Explain Arrow function in ES6.

9) What is the difference between ES6 Generator & Iterator in ES6.

10) Generate an HTML code to process placement registration form which accepts the student details like name, address, email-id, date of birth, percentage, branch (must be select ed using radio buttons) and technology preferred (using checkbox). Write JavaScript code to validate the following:
    I.   Valid email id("@" and ".")
    II.   All the fields must be filled before submission of the form.
    III.   Percentage validation is minimum first class(=>60%).

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11) Generate a program to check validity of a password with a condition:
    I.   Minimum length should be 8 characters not exceeding 15 characters.
    II.   Password should contain special symbols.

MODULE III-React Fundamentals

1) What is React js? What are the advantages of React?

2) What are the features of React js?

3) Explain various components of React Js with Examples

4) Differentiate between React js State and props?

5) Describe React js component life cycle with diagram.

6) Create a Single Page App in React using react router.

7) Differentiate between Controlled and Uncontrolled Component in react?

8) What are events In React Js?

9) What are different React JS animations? Give Examples.

10) Write step wise process to display "Hello World" in React JS.

MODULE IV-Node.js

1) What is Node.js? Explain its features with advantages?

2) Write a program to display "Hello World" in Node.js? Write step wise process?

3) What are callbacks??

4) Differentiate between synchronous and asynchronous programming model in Node.js?

5) Describe Event loop with example.

6) Describe REPL.

7) Explain Buffers and Streams in Node.js.

8) What is File System in Node.js? Explain with example

9) Explain Node.js Net module.

10) With the help of neat and clean diagram explain Web Application Architecture in detail.

11) What is Event Emitter in Node.js?

MODULE V-Express.js

1) What is Express.js? What are its features and advantages?

2) What is REST API? What are the principles of REST API?

3) Explain Express Generator.

4) Explain different REST API methods with examples.

5) Describe Authentication process in express.js.

6) Describe Express Routing.

7) Differentiate between Express.js and Node.js.

8) Explain session management in express.js

MODULE VI-Advance React

1) What are refs in React? When to use and when not to use refs?

2) What are callback refs?

3) What is React hooks? Why there is a need for hooks?

4) What is Hooks State?

5) What are types of side effects of React?

6) Explain structure and data flow of React flux

7) Differentiate between MVC vs flux vs Redux.

8) Describe Model View Controller Framework.

9) Explain custom and built-in hooks?

10) Describe Module Bundler? What are types of Module Bundlers?