



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal-500043, Hyderabad

B.Tech V SEMESTER END EXAMINATIONS (REGULAR/ SUPPLEMENTARY) - FEBRUARY 2024

Regulation: UG20

WEB APPLICATION DEVELOPMENT

Time: 3 Hours

(COMMON TO CSE | CSE (CS) | CSIT | IT)

Max Marks: 70

Answer ALL questions in Module I and II

Answer ONE out of two questions in Modules III, IV and V

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

MODULE – I

1. (a) Explain in detail about HTML element tags with examples and mention the different types of links. [BL: Understand| CO: 1|Marks: 7]
- (b) Design a web page that allows the user to choose from a series of images and to view the image in color and grayscale. [BL: Apply| CO: 1|Marks: 7]

MODULE – II

2. (a) List the various features of bootstrap and background properties. Explain the bootstrap components in detail with example. [BL: Understand| CO: 2|Marks: 7]
- (b) Build a basic bootstrap nav bar class to create a button to the right in the navigation bar using bootstrap. [BL: Apply| CO: 2|Marks: 7]

MODULE – III

3. (a) Discuss in detail about javaScript variables and operators with an example code for any three operators. [BL: Understand| CO: 3|Marks: 7]
- (b) Develop a javascript program to perform the email validation. Assume the following criteria to validate the email id
 - i) email id must contain the @ and . character
 - ii) There must be at least one character before and after the @. and after the @.
 - iii) There must be at least two characters after . (dot). [BL: Apply| CO: 3|Marks: 7]
4. (a) Write in detail about how ajax works and XMLHttpRequest object methods and properties. [BL: Understand| CO: 4|Marks: 7]
- (b) Create an XMLHttpRequest to retrieve data from an XML file and display the data in an HTML table. [BL: Apply| CO: 4|Marks: 7]

MODULE – IV

5. (a) State the Redux lifecycle diagram and explain the step-by-step process in state management. [BL: Understand| CO: 5|Marks: 7]

- (b) Consider an e-commerce application and explain how you would implement a dynamic route parameter to display specific product details when a user clicks on a product?

[BL: Apply| CO: 5|Marks: 7].

6. (a) Describe the role of Enzyme in testing react components. Provide examples of its key functions.

[BL: Understand| CO: 5|Marks: 7]

- (b) Write down the program to create react-Redux application with the following validation

i) Implement a form component with input fields for name and email?

ii) Add validation for name and email fields, displaying appropriate error messages.

[BL: Apply| CO: 5|Marks: 7]

MODULE – V

7. (a) List the steps in integrating REDUX with API. Explain REDUX API middleware with example code.

[BL: Understand| CO: 6|Marks: 7]

- (b) Develop a simple React code example demonstrating how to embed two or more components into one?

[BL: Apply| CO: 6|Marks: 7]

8. (a) Describe the role of an API service middleware and why it is beneficial for managing API calls in a React application.

[BL: Understand| CO: 6|Marks: 7]

- (b) Write a code snippet illustrating the structure of a user profile slice, actions to update the profile, and corresponding reducer logic.

[BL: Apply| CO: 6|Marks: 7]

