

via props and displays them. Implement functionality to filter students with marks greater than 75. (7)

5. (a) Explain the role of interpolation in Angular JS. (3)
- (b) How can you use Angular pipe to replace words in a string? (4)
- (c) What is Uniform Resource Identifier? What is their significance in REST APIs? State any five rules of Identifier Design with URIs. (8)
6. (a) Describe how the HTTP POST method is used to send and retrieve JSON data in a web application. (5)
- (b) Explain how JSON Schema validation is implemented in JavaScript. (5)
- (c) Write an example of a nested JSON object and show how to access inner properties. (5)
7. (a) What are the benefits of JSON over XML? (5)
- (b) Explain directives and its types for Angular applications. (5)
- (c) "State is isolated". Comment on this statement. (5)
- (100)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5057 J

Unique Paper Code : 2344000021

Name of the Paper : Internet Technologies: Web App Design and Development

Name of the Course : **GE : Common Prog. Group**

Semester : VI

Duration : 3 Hours Maximum Marks : 90

Instructions for Candidates

1. Write your Roll. No. on the top immediately on receipt of this question paper.
2. Attempt all questions from **Section-A**.
3. Attempt any **four** questions from **Section-B**.
4. Attempt **all parts** of a question together.

P.T.O.

SECTION A

1. (a) Explain the difference between: (2)

 <button onClick={handleClick}>, and

 <button onClick={handleClick()}>

(b) Define React. How does it differ from other front-end frameworks? (3)

(c) How is a React project set up using Create React App? (3)

(d) How are variables declared in ES6? (3)

(e) Describe the role of AJAX in web development. (3)

(f) Can web browsers read JSX directly? Justify your answer. (3)

(g) How do you validate properties using propTypes in React? (3)

(h) Mention the rules of caching in REST API? (3)

(i) State the role of expressions in Angular JS. Provide its syntax. (3)

(j). Define databinding. What are its types? (4)

SECTION B

2. (a) Differentiate between 'state' and 'props.' (5)

(b) Why are Default Props used in React? How are they defined? (5)

(c) Describe the structure of DOM. How does virtual DOM differ from the real DOM? (5)
3. (a) Explain the working of useState. (4)

(b) What is an arrow function and how is it used in React? (5)

(c) State the components in React. Differentiate between stateful and stateless components. (6)
4. (a) Explain the following JSON data types: (4)

 (i) String

 (ii) Object

 (iii) Array

 (iv) Number

(b) How is property validation achieved using custom function in React? (4)

(c) Create a React component that receives an array of student objects (with name, rollNo, and marks)