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Course Code 

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**Second Semester MCA Degree Examinations, September 2025**  
**WEB APPLICATION DEVELOPMENT**

**Duration: 3 hrs**

**Max. Marks: 100**

**Note:** 1. Answer any FIVE full questions, choosing ONE full question from each module.  
2. Missing data, if any, may be suitably assumed

<u>Q. No</u>	<u>Question</u>	<u>Marks</u>	<u>(RBTL:CO: PI)</u>
<b><u>MODULE – 1</u></b>			
1.	a. Describe the types of client-server architecture with suitable diagrams.	10	(1:1:2.2.1)
	b. Discuss the audio and video elements of HTML5 with an example program.	10	(2:1:2.1.2)
<b>(OR)</b>			
2.	a. Implement a web page to display your college details by using any five HTML5 tags.	10	(3:1:2.3.1)
	b. Write a note on canvas and SVG with suitable examples.	10	(1:1:2.2.1)
<b><u>MODULE – 2</u></b>			
3.	a. Discuss the key features and enhancements in CSS3.	10	(2:2:2.1.2)
	b. Illustrate flexbox and grid layouts with examples.	10	(3:2:2.2.1)
<b>(OR)</b>			
4.	a. Describe box model component layout with a neat diagram.	10	(2:2:2.1.2)
	b. Explain the step by step procedure to create a responsive web design.	10	(2:2:2.1.2)
<b><u>MODULE – 3</u></b>			
5.	a. Can you explain the importance of event handling in web page design with suitable examples?	10	(3:3:2.3.1)
	b. What are event listeners? Describe add event listener() method with an example.	10	(1:3:2.2.1)
<b>(OR)</b>			
6.	a. Write a note on call-backs and promises with suitable examples.	10	(1:3:2.1.1)
	b. Demonstrate creating and appending DOM elements in an HTML page.	10	(3:3:2.2.1)
<b><u>MODULE – 4</u></b>			
7.	a. What are front-end frameworks, and why are they important in modern web development?	10	(1:4:2.3.2)
	b. Describe how expressions and filters are used in AngularJS templates with examples.	10	(2:4:2.2.1)
<b>(OR)</b>			

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| <b>8.</b> | <b>a.</b> Compare React, Angular and Vue in terms of architecture, learning curve and use cases.               | <b>10</b> | <b>(4:4:2.3.3)</b> |
|           | <b>b.</b> What are services in AngularJS? How are they different from controllers and when should we use them? | <b>10</b> | <b>(1:4:2.2.1)</b> |

**MODULE – 5**

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| <b>9.</b> | <b>a.</b> What is a RESTful API? Describe its key principles and how it enables communication between client and server. | <b>10</b> | <b>(1:5:2.3.1)</b> |
|           | <b>b.</b> How can you connect a PHP application to a MySQL database? Provide code to demonstrate a basic connection.     | <b>10</b> | <b>(3:5:3.2.1)</b> |

**(OR)**

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|------------|---|-----------|--------------------|
| <b>10.</b> | <b>a.</b> Compare Node.js, PHP and Python in terms of performance, scalability and typical use cases in web development.                                | <b>10</b> | <b>(4:5:2.3.3)</b> |
|            | <b>b.</b> What does full-stack development involve? Explain how front-end and back-end technologies are integrated to build a complete web application. | <b>10</b> | <b>(1:5:2.2.1)</b> |

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