

Basavarajeswari Group of Institutions

BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT
 (Autonomous Institute under Visvesvaraya Technological University, Belagavi)

2024 SCHEME

USN

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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>
<u>MODULE – 1</u>			
1.	a. Discuss the core components that form the foundation of web technology.	10	(1:1:2.2.1)
	b. How do the different form input types in HTML5 function, and what are their typical use cases?	10	(2:1:2.1.2)
(OR)			
2.	a. Classify the various types of web technologies and their purposes.	10	(3:1:2.3.1)
	b. Discuss the audio and video elements of HTML5 with an example program.	10	(1:1:2.2.1)
<u>MODULE – 2</u>			
3.	a. Demonstrate the use of different CSS selectors by applying them in relevant styling scenarios.	10	(2:2:2.1.2)
	b. Describe the key features and benefits of Bootstrap and explain its working.	10	(3:2:2.2.1)
(OR)			
4.	a. Describe Box model component layout with a neat diagram.	10	(2:2:2.1.2)
	b. What are media queries? Write an example program to demonstrate media queries.	10	(2:2:2.1.2)
<u>MODULE – 3</u>			
5.	a. Visualize the structure of Document Object Model (DOM) and explain DOM Manipulation.	10	(3:3:2.3.1)
	b. Can you explain the importance of event handling in webpage design with examples?	10	(1:3:2.2.1)
(OR)			
6.	a. Discuss the uses of JavaScript libraries and classify them.	10	(1:3:2.1.1)
	b. How would you implement form validation in JavaScript? Provide an example to demonstrate your approach.	10	(3:3:2.2.1)

MODULE – 4

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| 7. | a. | What are front-end frameworks, and why are they important in modern web development? | 10 | (1:4:2.3.2) |
| | b. | Compare React, Angular, and Vue in terms of architecture, learning curve, and use cases. | 10 | (2:4:2.2.1) |

(OR)

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| 8. | a. | What are directives in AngularJS? Give examples of built-in directives and their use cases. | 10 | (4:4:2.3.3) |
| | b. | Explain the role of modules, controllers, and <code>\$scope</code> in AngularJS. How do they work together? | 10 | (1:4:2.2.1) |

MODULE – 5

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| 9. | a. | How do SQL and NoSQL databases differ? Give examples of scenarios where each would be more appropriate. | 10 | (1:5:2.3.1) |
| | b. | What is Object-Oriented Programming in PHP? Explain key concepts such as classes, objects, inheritance and encapsulation with examples. | 10 | (3:5:3.2.1) |

(OR)

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| 10. | a. | What is a RESTful API? Describe its key principles and how it enables communication between client and server. | 10 | (4:5:2.3.3) |
| | b. | Explain the difference between GET and POST methods in PHP. When should each be used in form handling? | 10 | (1:5:2.2.1) |

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