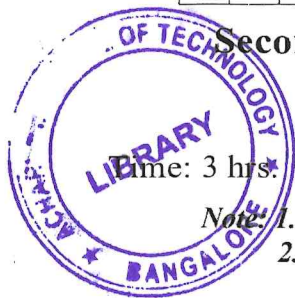


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Second Semester MCA Degree Examination, June/July 2026 Web Application Development

Time: 3 hrs.

Max. Marks: 100

- Note:**
1. Answer any FIVE full questions, choosing ONE full question from each module.
 2. M : Marks , L: Bloom's level , C: Course outcomes.

Module – 1				M	L	C
Q.1	a.	Explain the client-server architecture and its role in web development.		8	L2	CO1
	b.	Explain the HTML5 Multimedia elements (audio, video) with example?		8	L2	CO1
	c.	Discuss Web storage in HTML 5 API with Example?		4	L2	CO1
OR						
Q.2	a.	Differentiate between front-end and back-end development?		6	L1	CO1
	b.	Discuss and Write the HTML program using the HTML5 Semantic tags <header>, <section>, <footer>, <figure>.		6	L3	CO1
	c.	Explain Canvas and SVG in HTML5 for graphics with examples.		8	L3	CO1
Module – 2						
Q.3	a.	Explain Element, ID, Class and Universal Selectors in CSS3 with example.		8	L3	CO2
	b.	Discuss Responsive design principles in Web Design.		5	L1	CO2
	c.	Explain Features of Bootstrap? And also Discuss Bootstrap Button Component Classes with example?		7	L3	CO2
OR						
Q.4	a.	Explain Flexbox and Grid layouts in CSS3 with example.		8	L2	CO2
	b.	Explain Fluid grids and flexible images in CSS3 with example.		8	L2	CO2
	c.	Discuss Bootstrap utilities with example.		4	L3	CO2
Module – 3						
Q.5	a.	Explain JavaScript Control structures with example.		8	L3	CO3
	b.	Discuss for Creating and modifying DOM elements in JavaScript with example.		7	L3	CO3
	c.	Explain the differences between AJAX and Fetch API in a Web Application Development.		5	L3	CO3

OR

Q.6	a.	Demonstrate Bitwise operators in a JavaScript.	5	L3	CO3
	b.	Explain the DOM structure with example.	6	L3	CO3
	c.	Explain Asynchronous JavaScript - callbacks, promises, async/await with example?	9	L3	CO3

Module – 4

Q.7	a.	Explain Importance of front-end frameworks?	5	L2	CO4
	b.	Explain Directives in AngularJS with Example?	8	L4	CO4
	c.	Discuss AngularJS Built-in Services and dependency injection.	7	L4	CO4

OR

Q.8	a.	Define Framework? And Explain differences between React, Angular, Vue frameworks?	7	L2	CO4
	b.	Explain expressions and filters in AngularJs with example.	8	L4	CO4
	c.	Discuss Data binding in AngularJS with Example?	5	L4	CO4

Module – 5

Q.9	a.	Define server-side languages? Explain the Features of Node.js, PHP, Python server-side languages?	7	L3	CO5
	b.	Explain how front-end and back-end technologies are integrated in full-stack development.	8	L5	CO5
	c.	Discuss Security best practices in Web Application?	5	L3	CO5

OR

Q.10	a.	Explain RESTful web services. How are they used in backend development?	8	L3	CO5
	b.	Explain Steps in Full-Stack Web App Development?	8	L5	CO5
	c.	Discuss the differences between authentication and authorization?	4	L3	CO5
