R.N.G.PATEL INSTITUTE OF TECHNOLOGY-RNGPIT
(An Autonomous Institute U/s UGC Act 1956)

B.Voc. SEMESTER-III, SEMESTER END EXAMINATION – WINTER 2025

SUBJECT CODE: 1SD303   **DATE: 20-12-2025**
SUBJECT NAME: ADVANCED WEB TECHNOLOGY
TIME: 11:00 AM to 01:00 PM   **TOTAL MARKS: 50**

Instructions

1. It is **compulsory** for students to write **Enrolment No. /Seat No.** on the question paper.
2. Attempt all questions in the question paper.
3. The figures to the right of each question indicate full marks. Make suitable assumptions with proper justification wherever required.
4. Simple, non-programmable scientific calculators are permitted.
5. BL - Cognitive Level (As per Revised Bloom's Taxonomy) (R-Remember, U-Understanding, A –Application, N –Analyze, E – Evaluate, C -Create), CO - Course Outcomes.

			Marks	BL	CO
Q.1	(a)	Define CSS and outline its basic syntax. List any key advantages of applying CSS in web design.	05	R	1
	(b)	Explain the concept of Responsive Web Design. Discuss how frameworks such as Bootstrap or CSS media queries enhance adaptability across various devices.	05	U	1
Q.2	(a)	Explain the basic structure and working of an AngularJS application.	05	U	2
	(b)	Develop a simple AngularJS app that uses a custom service to fetch and display data in a view.	05	A	2

OR

			Marks	BL	CO
Q.2	(a)	Describe the MVC architecture used in AngularJS.	05	U	2
	(b)	Create a small AngularJS program showing route navigation between two views.	05	A	2
Q.3	(a)	Explain the concept of data binding in AngularJS and its types.	05	U	3
	(b)	Develop a simple AngularJS form with validation for basic user inputs.	05	A	3

OR

			Marks	BL	CO
Q.3	(a)	Describe the use of directives in AngularJS with suitable examples.	05	U	3
	(b)	Write a short AngularJS program to demonstrate the creation and use of a custom directive.	05	A	3

Q.4	(a)	Define the Event Loop in Node.js and explain its working in handling asynchronous tasks.	05	R	4
	(b)	Develop a Node.js program using the File System module to read the contents of a text file and display them on the console.	05	A	4

OR

Q.4	(a)	What is an EventEmitter in Node.js? Explain its purpose and basic syntax.	05	R	4
	(b)	Write a simple Node.js script that creates a custom event using the EventEmitter class and handles it with a listener function.	05	A	4

Q.5	(a)	Explain the process of connecting Node.js with MongoDB and describe the role of Mongoose in this integration.	05	U	5
	(b)	Write a Node.js program to perform CRUD operations (Insert, Find, Update, Delete) on a MongoDB collection.	05	A	5

OR

Q.5	(a)	Describe the key data types supported by MongoDB with suitable examples.	05	U	5
	(b)	Develop a Node.js script to insert and display multiple student records from a MongoDB collection	05	A	5

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