

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER- VI EXAMINATION – SUMMER 2026****Subject Code:3161611****Date:01-06-2026****Subject Name: Advanced Web Programming****Time: 10:30 AM TO 01:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		MARKS
Q.1	(a) Define CSS. Explain different types of CSS.	03
	(b) What do you mean by responsive design? Explain with suitable example.	04
	(c) Write short note on: i) JavaScript in built objects. ii) DOM	07
Q.2	(a) Write a note on Angular JS.	03
	(b) Enlist and discuss the advantages of JavaScript.	04
	(c) Explain error handling in JavaScript with suitable example.	07
	OR	
	(c) Explain event handling in JavaScript with suitable example.	07
Q.3	(a) Enlist and explain Angular JS directives.	03
	(b) Explain MVC architecture of Angular JS.	04
	(c) Create a webpage using Angular JS that displays details of students' objects (such as Enrollment No., Name, Semester, Branch, Mobile Number, Email Address, Address etc.) in a tabular format with appropriate CSS effects.	07
	OR	
Q.3	(a) Enlist and discuss the use of Node JS.	03
	(b) Explain controller in Angular JS with example.	04
	(c) Write Angular JS code to create a custom filter that will capitalize non-vowel characters of a string and the vowel characters must be in lowercase. Also write code to that will read a file SampleText.txt and apply the filter effect on the content of the file.	07
Q.4	(a) Explain core modules of Node JS.	03
	(b) Explain the concepts of callback in Node JS with suitable example.	04
	(c) Define stream in Node JS. Write node JS code to read from stream.	07
	OR	
Q.4	(a) Explain how to create a buffer in Node JS.	03
	(b) Discuss MongoDB data types in detail.	04
	(c) Explain the use of following Input field states. i) \$untouched ii) \$touched iii) \$pristine iv) \$dirty v) \$valid vi) \$invalid	07
Q.5	(a) Explain REST architecture in Node JS.	03
	(b) Explain session and cookies of Node JS with suitable example.	04
	(c) Write code to perform update and delete operations on Employee database using Node.js and MongoDB.	07
	OR	
Q.5	(a) Write a Node JS code to create a server.	03

- (b) Define Node Package Manager (NPM). Explain the process of installing, upgrading and uninstalling module using NPM. **04**
- (c) Explain the following MongoDB operations with Node JS. **07**
- i) Insert ii) Find iii) Query iv) Sort v) Delete vi) Update
