GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VI(NEW) EXAMINATION – WINTER 2022

Subject Code:3161611   **Date:17-12-2022**
Subject Name:Advanced Web Programming
Time:02:30 PM TO 05:00 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.**

Q.1	**(a)**	What is CSS? Explain the different types of CSS.	**03**
	(b)	Write a JavaScript program to validate an Email address.	**04**
	(c)	What is SPA (Single page application) in AngularJS? Explain the advantages of AngularJS.	**07**
Q.2	**(a)**	What are directives in AngularJS?	**03**
	(b)	Explain the data binding process in AngularJS.	**04**
	(c)	Explain controller in AngularJS with example.	**07**
		OR	
	(c)	Write a syntax to send sample HTTP POST request in AngualrJS?	**07**
Q.3	**(a)**	How can you integrate AngularJS with HTML?	**03**
	(b)	Differentiate between expressions of AngularJS and JavaScript.	**04**
	(c)	What is $rootscope and how do we use it?	**07**
		OR	
Q.3	**(a)**	Explain AngularJS MVC Architecture	**03**
	(b)	How are validations implemented in AngularJS?	**04**
	(c)	Write an AngularJS code which takes number as an input and display that number is odd or even.	**07**
Q.4	**(a)**	Explain different data types in Node.js.	**03**
	(b)	What are streams? How many types of streams are present in Node.	**04**
	(c)	What is Node.js? Explain the features of Node.js.	**07**
		OR	
Q.4	**(a)**	How to create buffer in Node.js?	**03**
	(b)	What are the core modules of Node.js?	**04**
	(c)	How to create a simple server in Node.js that returns Hello World?	**07**
Q.5	**(a)**	Explain usage of NODE_ENV?	**03**
	(b)	What is REPL? What purpose it is used for?	**04**
	(c)	Write code to perform Insert and find operations on Student database using Node.js and MongoDB.	**07**
		OR	
Q.5	**(a)**	Explain an event-loop in Node.js.	**03**
	(b)	What is an error-first callback?	**04**
	(c)	Write code to perform update and delete operations on Employee database using Node.js and MongoDB.	**07**

****