

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 AngularJS? **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**
