UPES
End Semester Examination, May 2024

Course: Web Technologies   Semester: IV
Program: B.Tech (CSE+All)   Time : 03 hrs.
Course Code: CSEG 2041   Max. Marks: 100

Instructions: All Questions are Compulsory.

SECTION A
(5Qx4M=20Marks)

S. No.		Marks	CO
Q 1	Explain the working of a search engine and give examples of any three search engines.	4	CO1
Q 2	Discuss the setInterval () function in JavaScript. Write a program to display a clock in a textbox.	4	CO3
Q 3	Discuss the event driven and non-blocking architecture of node.js	4	CO5
Q 4	Write a program to accept an array containing n distinct numbers 0, 1, 2, ..., n, except any one number and find the one that is missing from the array.	4	CO3
Q 5	Describe the CSS Box Model and its components. How do padding, border, and margin differ?	4	CO2

SECTION B
(4Qx10M= 40 Marks)

Q 6	Discuss the Importance of Directives in AngularJS. Explain following directives with example in angular. ng-bind, ng-init, ng-show, ng-switch, ng-if. OR Explain the purpose of the classes ng-valid, ng-invalid, ng-dirty, ng-pristine, ng-touched, and ng-untouched. How can these be used to improve user feedback in form validation? Give Example.	10	CO4
Q 7	Discuss in detail the MVC Architecture in angular.js and discuss the importance of Single Page Application.	10	CO4
Q 8	Compare the traditional web server model and node.js process model.	10	CO5
Q 9	Describe the Process of Creating a Responsive Web Design Using HTML and CSS.	10	CO1 CO2

SECTION-C
(2Qx20M=40 Marks)

Q 10	Discuss the different types of node.js modules available and write a program that reads the HTML file and return the content. Discuss the node.js built-in HTTP module and write a code for HTTP server that listens to server ports and gives a response back to the client. OR Write code to demonstrate how to extend the EventEmitter class and add custom functionality to it. Demonstrate how to create (insert), read (query), update, and delete documents using the MongoDB shell, providing examples for each operation.	**10 + 10**	**CO5**
Q 11	Describe the Core Concepts of AngularJS and How They Improve Web Application Development. Create a button that, when clicked, updates a message on the page using ng-click. Include a counter that shows how many times the button has been clicked.	**10 + 10**	**CO4**