KUMARAGURU
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B.E DEGREE EXAMINATIONS: APRIL /MAY 2024

(Regulation 2018)

Sixth Semester

INFORMATION SCIENCE AND ENGINEERING

U18ISI6203: Internet and Web Programming

COURSE OUTCOMES

CO1:   Develop front end application using HTML5 and CSS3.

CO2:   Enhance interactivity and perform validation using Java Script.

CO3:   Design responsive webpages using Bootstrap.

CO4:   Develop server-side application using Node JS and MongoDB.

CO5:   Understand essential functionalities like user authentication and services like Backend as a Service.

Time: Three Hours   **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

(Answer not more than 40 words)

1.	What is the difference between static and dynamic HTML?	CO1	[K_2]
2.	Write appropriate inline CSS to show a section of the HTML document with a font size of 20.	CO1	[K_2]
3.	Mention the various Java Script Object Models.	CO2	[K_1]
4.	How to create arrays in JavaScript?	CO2	[K_2]
5.	List the key components of Bootstrap?	CO3	[K_2]
6.	How can make Responsive Div in Bootstrap.	CO3	[K_2]
7.	List the aggregation operations in MongoDB	CO4	[K_1]
8.	Define bootstrap navigation	CO4	[K_2]
9.	Give one example of Cross-Origin Resource Sharing	CO5	[K_1]
10.	Recall the key functions of HTTPS.	CO5	[K_2]

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11.	a)	Creating a webpage for a local cafe's menu. Explain how you would insert a table into the HTML document to display the menu items, prices, and descriptions. Provide a step-by-step guide on structuring the table using HTML elements such as <table>, <tr>, <td>, and <th>, and demonstrate how to customize its appearance using CSS. Include specifics on how to populate the table cells with content and how to ensure readability and accessibility for users.	10	CO1	[K₃]
	b)	How to create user interactive web pages using Form elements and Form objects? Design an Student registration form using HTML Form elements.(Assume your own fields)	6	CO1	[K₃]
12.	a)	Explain JavaScript and Document Object Model with an example	8	CO2	[K₂]
	b)	Design a login form using JavaScript and perform validations such as.	8	CO2	[K₄]

12. b) (continued)

1. Password length must be 6 to 12 characters

2. Username should not start with _, @ or number.

3. Phone number must be 10 digit start with 6/7/8/9

4. All fields should not be blank.

13.	a)	How do media queries significantly enhance the effectiveness of web design and development?	8	CO3	[K₂]
	b)	Explain a twitter bootstrap with examples.	8	CO3	[K₂]
14.		How to build a RESTful API using Node.js, Express, and MongoDB? Explain the same.	16	CO4	[K₂]
15.	a)	Describe about Full Stack Web Development	8	CO4	[K₂]
	b)	Create JavaScript to prompt the user for the radius of the sphere and call function sphere Volume to calculate and display the volume of the sphere. Use the statement. Volume=(4.0/3.0)*Math.PI*Math.pow(radius,3)	8	CO2	[K₃]
16.		How does Token-Based Authentication work with Passport and JSON Web Token (JWT) in web development? Provide an example to illustrate the process of user authentication, token generation, and validation.	16	CO5	[K₄]

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