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B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

February / March 2025 Semester End Main Examinations

Program: B.E.

Branch: Common to all Branches

Course Code: 22CS1ESWEB

Course: Introduction to WEB Programming

Semester: I

Duration: 3 hrs.

Max Marks: 100

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

UNIT - I			CO	PO	Marks
1	a)	Differentiate between web browser and web server.	CO1		05
	b)	Apply suitable tags to generate the below web page. Web Programming <u>Web programming</u> is used to create websites, online stores, web applications, and other online services that are accessed through the Internet . Web programming languages like HTML, CSS, JavaScript, PHP, and <i>Python</i> are used to create these web-based applications.	CO2	PO1	05
	c)	Apply suitable tags and write a html code to generate the below output. <ul style="list-style-type: none"> • Fruits <ul style="list-style-type: none"> ◦ Apple ◦ Banana ◦ Mango ◦ Orange • Vegetables <ul style="list-style-type: none"> ◦ Spinach ◦ Cauliflower ◦ Beetroot • Cereals • Nuts 	CO2	PO1	10
		OR			
2	a)	Apply the suitable tags to generate the below output:	CO2	PO1	08

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

What is Space Exploration?

Space Exploration is the use of space technology to explore outer space.

While astronomers use ^{telescopes} to explore space, both uncrewed robotic space missions and human spaceflight are used to explore it physically.

One of the primary sources for space science is *space exploration*, which is similar to astronomy in its classical form.

	b)	Apply the suitable tags to generate the below output: <ul style="list-style-type: none">▪ Coffee<ul style="list-style-type: none">i. Cappuchinoii. Frappuccinoo Americanoo Expresso▪ Tea<ul style="list-style-type: none">A. Milk TeaB. Black Tea	CO2	PO1	08																		
	c)	Differentiate between HTML and XHTML	CO1		04																		
		UNIT - II																					
3	a)	Differentiate between web browser and web server.	CO1		05																		
	b)	Design a web page (with suitable html program) that includes title, heading and an image with hyperlink, on click of hyperlink which it redirects to the “BMSCE web” page. (Assume the path for link and an image)	CO1		05																		
	c)	Design the below table using appropriate table tags. <table border="1"><thead><tr><th>Name</th><th>Subject</th><th>Marks</th></tr></thead><tbody><tr><td>Jack</td><td>Maths</td><td>94</td></tr><tr><td></td><td>Science</td><td>88</td></tr><tr><td>Alex</td><td>Maths</td><td>82</td></tr><tr><td></td><td>Science</td><td>98</td></tr><tr><td colspan="3">Row 3 Cell 1</td></tr></tbody></table>	Name	Subject	Marks	Jack	Maths	94		Science	88	Alex	Maths	82		Science	98	Row 3 Cell 1			CO2	PO1	10
Name	Subject	Marks																					
Jack	Maths	94																					
	Science	88																					
Alex	Maths	82																					
	Science	98																					
Row 3 Cell 1																							
		OR																					
4	a)	Design the below table with appropriate table tags.	CO3	PO3	10																		

		<table border="1"> <tr> <td colspan="2" rowspan="2">Rocket</td><td>Name</td><td>propulsion</td></tr> <tr> <td>SLV-3</td><td>All solid</td></tr> <tr> <td rowspan="2">Orbit</td><td>India</td><td colspan="2">Transfer orbit</td></tr> <tr> <td>Low earth</td><td>First rocket</td><td></td></tr> </table>	Rocket		Name	propulsion	SLV-3	All solid	Orbit	India	Transfer orbit		Low earth	First rocket			
Rocket		Name			propulsion												
		SLV-3	All solid														
Orbit	India	Transfer orbit															
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	b)	<p>Design a form given below using suitable HTML code.</p> <p>First Name: <input type="text"/> Contact: <input type="text"/></p> <p>E-mail: <input type="text"/> Password: <input type="text"/></p> <p>Select your elective below:</p> <p><input type="radio"/> WEB <input type="radio"/> Python</p> <p>Select your commute mode below:</p> <p><input type="checkbox"/> auto <input type="checkbox"/> bus</p> <p><input type="text" value="Address:"/></p> <p><input type="button" value="Submit"/></p>	CO3	PO3	10												
		UNIT - III															
5	a)	Explicate Cascading Style Sheet. Compare inline, internal and external style sheet with example.	CO3	PO2	10												
	b)	<p>A web designer wants to create content in the following way. Help him with a suitable approach and correct syntax.</p> <p>I. Link: after visited red color and before visited blue color II. Table with odd rows pink and even rows blue color. III. Text color-green, Text-indentation-2cm, Text case-uppercase</p> <p>Note: create 2*2 table</p>	CO3	PO2	10												
		OR															
6	a)	<p>A web designer wants to create content in the following way. Help him with a suitable approach and correct syntax.</p> <p>I. First letter in the paragraph styled with Font-Family-Arial, color- II. Red, font-size-5px. III. First line of paragraph to appear pink with a background color yellow. IV. Add “welcome to BMSCE” before a h1 heading. V. Add an image after p tag.</p>	CO3	PO2	10												

		Note: Display the contents with examples of multiple h1 and p tags.			
6	b)	Why are CSS selectors important in web design? Explain various types of CSS selectors with suitable examples.	CO3	PO2	10
		UNIT - IV			
7	a)	Differentiate between let, var and const keywords and provide valid examples for each.	CO3	PO2	05
	b)	<p>Predict the output of following code:</p> <ol style="list-style-type: none"> 1. let str = "Mind, Power, Soul"; let part = str.substring(6, 11); console.log(part); 2. let gfg = 'BMSCE'; let geeks = 'LEETCODE is the best platform to learn and experience Computer Science.'; console.log(gfg); console.log(geeks); console.log(gfg.charAt(0)); console.log(geeks.charAt(5)); 	CO3	PO2	10
	c)	A company decides to give bonus to all its employees on Diwali. A 10% bonus on salary is given to the male workers and 15% bonus on salary to the female workers. Write a JavaScript program to enter the salary and gender of the employee. If the salary of the employee is less than Rs 10,000 then the employee gets an extra 2% bonus on salary. Calculate the bonus that has to be given to the employee and display the salary that the employee will get.	CO3	PO2	05
		OR			
8	a)	<p>Predict the output of following code:</p> <div style="border: 1px solid black; padding: 10px;"> <pre><p>Extract a part of a string from position 7:</p> <p id="demo"></p> <script> let text = "Apple, Banana, Kiwi"; let part = text.slice(7); document.getElementById("demo").innerHTML = part; </script></pre> </div> <div style="border: 1px solid black; padding: 10px; margin-top: 10px;"> <pre><p id="demo"></p> <script> let text = "I love cats. Cats are very easy to love. Cats are very popular." text = text.replaceAll("Cats", "Dogs"); text = text.replaceAll("cats", "dogs"); document.getElementById("demo").innerHTML = text; </script></pre> </div>	CO1		07

			<pre> <p>The length of the string is:</p> <p id="demo"></p> <script> let text = "ABCDEFGHIJKLMNOPQRSTUVWXYZ"; document.getElementById("demo").innerHTML = text.length; </script> </pre>				
	b)		Discuss the primitive types in JavaScript with an example for each.	CO2	PO1	07	
	c)		Write a JavaScript program using to check whether a number is even or not.	CO2	PO1	06	
UNIT - V							
9	a)		Write a JavaScript Program to find maximum and minimum between two numbers using functions. Maximum and minimum number should be displayed in Calling function.	CO2	PO1	10	
	b)		<p>Write a JavaScript that handles following events.</p> <p>(I) If the mouse is over heading, change font color to “red” and if the mouse goes out of the heading change it to “black”</p> <p>(II) Background color should change to red after releasing the pressed key.</p>	CO3	PO2	10	
OR							
	10	a)	Develop JavaScript code to accept a number from the user and then displays the factorial of the same. Use a recursive function to calculate and return the factorial value.	CO2	PO1	10	
	b)		<p>Design a JavaScript that handles the following events.</p> <p>(i) If the mouse is over heading, change font color to “red” and if the mouse goes out of the heading change it to “black”</p> <p>(ii) On key up event change the lowercase characters to uppercase</p>	CO3	PO2	10	
