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PES University, Bangalore
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UE14CS204

END SEMESTER ASSESSMENT (ESA) B.TECH. III SEMESTER- Nov. 2015

UE14CS204 – Web Technology I

Time: 3 Hrs	Answer All Questions	Max Marks: 100

Note: All answers must be precise and to the point.

1.	a)	Use **HTML** to create a document that contains the following poem by Sir Walter Scott
		My Native Land
		Breathes there the man, with soul so dead,
		Who never to himself hath said, This is my own, my native land!
		
		The page should be designed such that
		   (i) The **title** of the page should be "Poems by Sir Walter Scott"
		   (ii) "My Native Land" is displayed as a **heading**
		   (iii) A line should be displayed below the heading
		   (iv) The remaining content should be displayed in a paragraph
		   (v) The poet's name should be displayed in italics on the page
		Underline the tags that you have used.
			6

	b)	**"Span and div elements have the exact same effect when applied around a body of text".** Accept or reject this statement with suitable justification.	4
	c)	What are the three approaches to applying styles to a given HTML page? Explain each one briefly.	6
| | d) | ```
#xyz {
margin: 0;
padding: 3px;
font-family: "Times New Roman", "Times Roman", Roman, serif;
color: #000;
}
```<br>Based on the code snippet above answer the following questions<br>   (i) Which selector is used in the above code?<br>   (ii) What does this statement indicate **padding: 3px;**<br>   (iii) Write a single line of HTML code that applies the given style to a heading containing the text **"Life is beautiful"** | 4 |
| 2. | a) | Complete the code given below to calculate and display the sum and product of a and b<br><br>```
<script type="text/javascript">
    var a=window.prompt("Enter first value");
    var b=window.prompt ("Enter second value");
//TODO: Display the sum and product of a and b



</script>
``` | 5 |

	b)	Explain **substring** and **substr** functions in Javascript. What is the output of the following script ? `<script type="text/javascript">` `var str = "Apples are round, and apples are juicy.";` `document.write("(1,2): "   + str.substr(1,2));` `document.write(" (0,10): "  + str.substring(0, 10));` `document.write(" (5): "    + str.substring(5));` `</script>`	5
	c)	Using Javascript's Date object write a program to display the current time in AM/PM format. e.g If it is 2:45 in the afternoon the script should display 2:45 PM	5
	d)	Using the built-in sort method of the array object to sort the given array in **ascending** order and display it. **`<script type="text/javascript">`** **`var a=[100,89,34,22,140,32,67,199,30]`** **`//TODO: sort the array and display it`** **`</script>`**	5
3.	a)	Write a program using JavaScript and HTML which contains a button and a div. Each time the button is clicked the value in the div must be increment by 1. **Sample Output:** 19 `click me`	6

	b)	Mr. X designed the following webpage called page.html.
		`<html>`
		  `<head>`
		    `<title>Your Title Here</title>`
		  `</head>`
		  `<body>`
		    `<img src="clouds.jpg" id="sky">`
		    `<a href="http://somegreatsite.com">Link Name</a> is a link to another nifty site`
		    `<h1 id="name">My name is Alpha</h1>`
		     `<h2 id="fame">I am famous</h2>`
		      `<p id="normal"> This is a normal paragraph! </p>`
		       `<p id="bold">This is a bold paragraph! </p>`
		    `</body>`
		`</html>`
		Help him write a function **change()** using **only javascript** that can make the following changes to the DOM of page.html
		i)Create a new div whose id is extra. Add the two paragraph elements to this div
		ii)Change the image elements source to "sky.jpg"
		iii) Remove the h2 element from the page
		iv) Change the font color of h1 to red.
			8

	c)	In the context of event handling what does "**this**" signify? For a given event e what do the following properties signify i)ctrlKey ii)cancelBubble iii)keyCode iv)type v) screenX	6

4.	a)	What is client-side scripting? List any three limitations of client-side scripting	5
	b)	"Cookies have a number of limitations". How does HTML5 propose to solve these. Explain.	5

	c)	What are the two types of gradients that can be used on an HTML5 canvas? Complete the given code snippet such that a square with each side 50 pixels is created at coordinates (10,10) on the canvas. Apply a black and white gradient to the square.
		`<script>`
		`var c=document.getElementById("myCanvas");`
		`var ctx=c.getContext("2d");`
		`var grd=ctx.createLinearGradient(0,0,170,0);`
		
		`//TODO: Apply a black and white gradient to the square.`
		`</script>`
			5

	d)	Why is a cache manifest required? What are its three parts?	5

5.	a)	https://www.example.com/login.php?user=mickey&passwd=mini
		
		The URL shown above was displayed in the address bar after submitting an HTML form.
		   (i) Which two methods can be used for submitting a form?
		   (ii) Which method was used to submit the form referred to above.
		   (iii) Write a PHP script to print the two values passed in the query string shown above
			4

	b)	What type of array is required for representing the data shown below? How are they different from normal arrays? Write a PHP script to create an array called $data containing the data given below and then print the contents of the array. *Hint: You may use for loop or foreach loop for printing the array*<table><tr><td>K</td><td>Potassium</td></tr><tr><td>Na</td><td>Sodium</td></tr><tr><td>Ca</td><td>Calcium</td></tr></table>	6
	c)	What are regular expressions? Name any two functions in PHP used for searching a string.	4
	d)	What are cookies? Explain how cookies are created and deleted in PHP.	6