



May 2022: END SEMESTER ASSESSMENT (ESA) B.Tech. III SEMESTER

UE20/19CS204: WEB TECHNOLOGIES




Time: 3 Hrs.

Answer All Questions

Max Marks: 100

1	a	Create a Placement form with the following controls: a. A text box to collect the student's name and SRN b. A multiline input field to collect college name and address c. A student should give choice to tick their department from a list of departments i. CSE ii. ECE iii. MECH d. A collection of three radio buttons for Semester option that are labelled as follows: i. IV ii. V iii. VI e. Submit and reset Button	8
	b	"The only way to apply CSS is by using external stylesheets". Accept or reject this statement with suitable explanation.	6
	c	With suitable diagram explain CSS Box model and its properties with example	6
2	a	Give the difference between JSON and XML. Represent the details of three 6 th sem students both in JSON and XML. Consider the attributes id, name, branch, CGPA	10
	b	i) What is jQuery? What are its advantages? ii) For the given HTML code write a jQuery code for sliding all divs up and down <div style="background-color: #f0f0f0; padding: 10px;"><pre><body> <button class="btn1">Slide down</button> <button class="btn2">Slide up</button>

 <div>PES</div> <div>UNIVERSITY</div> <div>BANGALORE</div> </body></pre></div>	10(4+3+3)

		iii) Write a jQuery code to add a red border to an image "Sample.jpg" on button click	
3	a	<p>i) What would be the output of the following example? Justify your answer</p> <pre> var Test=(props)=> { return (<div> Hello World 1 </div> <div> Hello World 2 </div>); } ReactDOM.render(<Test/>, mountNode) </pre> <p>ii) Which of the following is used to pass data to a component from outside in React.js? Justify your answer</p> <ol style="list-style-type: none"> SetState Render with arguments Props PropTypes 	4(2+2)
	b	With a neat diagram explain component life cycle.	6
	c	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Name : Chicpeas Price : 65 INR/kg Qty : 500 gms</p> </div> <div style="text-align: center;">  <p>Name :Sugar Price : 38 INR/kg Qty : 2 kg</p> </div> <div style="text-align: center;">  <p>Name :Red rice Price : 50 INR/kg Qty : 10 kg</p> </div> </div> <p>Total Bill Amount : 608.50 INR</p> <p>Create a complex component that will render 3 stationary item images, name of item, price as shown in the sample figure above. Create a form input to take the quantity from the user When the</p>	10

		<p>quantity of the item is entered the total bill amount of the order needs to be calculated and displayed at the bottom.</p> <p>Add styling using CSS modules in which all class names are scoped locally by default.</p>	
4	a	<p>i) Is Node.js single threaded? Accept or reject and justify your answer</p> <p>ii) What is Event Emitter in Node.js? What is the use of on and emit properties of event emitter?</p>	6(3+3)
	b	Create a simple server (use http request GET method) that will allow you to display an HTML file on the browser given the pathname. Set default pathname to index.html. Handle errors by displaying file not found message	8
	c	<p>Imagine you have a MongoDB database “Sampledb” which has collection “faculty” with fields faculty_ID, faculty_Name, Dept, Designation and contract_type. Write a program to connect to MongoDB database in Node.js to find data of all faculties who work in CSE department.</p> <p>Note: Only write Server-Side code</p>	6
5	a	Brief any 4 design specifications for RESTful APIs. What are the HTTP methods supported by REST?	8
	b	Write a program to upload a file to Node.js server using express file upload library.	6
	c	<p>What are Middleware Functions and what are they used for?</p> <p>Explain Router-level middleware with an example.</p>	6