



SCHOOL OF COMPUTER SCIENCE ENGINEERING AND INFORMATION SYSTEMS
CONTINUOUS ASSESSMENT TEST - II
WINTER SEMESTER 2024-2025

SLOT: D1+TD1

Programme Name & Branch : B.Tech, Information Technology
Course Code and Course Name : BITE 304L, Web Technologies
Faculty Name(s) : Dr.Vijayan R, Dr.Vijayarani A & Dr.Balasubramani M
Class Number(s) : VL2024250503424, VL2024250503430 & VL2024250503415
Date of Examination : 19-03-25, AN
Exam Duration : 90 minutes
Maximum Marks: 50

General instruction(s):

- Answer All Questions
- M - Max mark; CO – Course Outcome; BL – Blooms Taxonomy Level (1 – Remember, 2 – Understand, 3 – Apply, 4 – Analyse, 5 – Evaluate, 6 – Create)
- Course Outcomes:
- CO2: Use JavaScript and JQuery to create dynamic web pages.
- CO3: Formulate web applications that employ the MVC architecture and integrate Client and Server using the AJAX.
- CO4: Exhibit the working of server-side scripts and open-source databases

Q. No	Question	M	CO	BL
1.	Write the HTML code to create a page which contains text box labelled as credit card number and button labelled as validate. The button calls a Java Script function where the credit card number should be validated as per the following conditions. a. American Express—Numbers start with 34 or 37 and consists of 15 digits. b. Diners Club—Numbers begin with 300 through 305, or 36 and 38 and consists of 14 digits c. Discover—Numbers begin with 6011 or 65 and consists of 16 digits. d. JCB—Numbers beginning with 2131 or 1800 consists of 15 digits, while numbers beginning with 35 consist of 16 digits. e. MasterCard—Numbers start with the numbers 51 through 55 and consists of 16 digits. f. Visa—Numbers start with a 4; new cards consists of 16 digits and old cards consist of 13 digits. Finally, display the card type if it is valid card, otherwise display error message in red color.	10	2	3
2.	Assume that a web page is created as shown here to calculate the grade and you have to write only the Java Script code. The HTML and CSS codes are given for the Java script reference.	10	2	3
	CSS Code <pre><style type="text/css"> .pass { background-color: #greenyellow; font-weight: bold; width:100; } .fail { background-color: opera; font-style: italic; width:100; } </style></pre> HTML Code <pre><h1>Grade Calculator</h1> HW1 <input class="earned" type="text" size="2" /> / <input class="max" type="text" size="2" />
 HW2 <input class="earned" type="text" size="2" /> / <input class="max" type="text" size="2" />
 HW3 <input class="earned" type="text" size="2" /> / <input class="max" type="text" size="2" />
 <label><input id="curve" type="checkbox" /> Curve +5 ?</label>
 <button id="compute" onclick="computeClick()">Compute!</button> <button id="clear" onclick="clearClick()">Clear</button> <div id="resultsarea"> <!-- your percentages should be inserted here --> </div></pre>			



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Add the score of three homework and divide it by the sum of all max score. Include five percent of score if the "Curve" is selected with the capping to 100. Now set the grade as "Pass" if the score is 60 and above otherwise, "Fail". Create a new "<div>" every time to display the score and choose the corresponding class for the div. All input should be cleared when the user clicks the "Clear" button.

Grade Calculator

HW /
HW /
HW /
☐ Curve +5 ?

Grade Calculator

HW /
HW /
HW /
☐ Curve +5 ?

80

Grade Calculator

HW /
HW /
HW /
☒ Curve +5 ?

80

85

Grade Calculator

HW /
HW /
HW /
☐ Curve +5 ?

80

85

59

3. Assume that a JSON file represents the food data which contains category(Soup, Starter, Main Course, Beverage), type(Veg, Non-Veg), name, price, calories, ingredients (array of values) as shown here:

```
[{
  "category": "Beverage",
  "foodtype": "Veg",
  "foodname": "Lemon Juice",
  "price": 40,
  "calories": 50,
  "ingredients": ["lemon", "sugar", "salt"]
}, {
  "category": "Soup",
  "foodtype": "Non-Veg",
  "foodname": "Chicken Clear Soup",
  "price": 130,
  "calories": 60,
  "ingredients": ["Chicken", "vegetable", "corn flour"]
}, .....]
```

Write a HTML program which collects the food type and category through drop down along with submit button. Write AJAX method to fetch the data from the server through the url "<http://foodworld.com/post>" and JavaScript code to display the food details which are matching with the selected type and category.

10

3

5

4. Write a single Node JS with express middleware program with two routings for the following:

- Routing1 - Collect the user name and password through HTML form along with the button "Login".
- Routing2 - check for the availability of the session "s1" with the value of "user name". If it is existing display the message "Authorized User". Otherwise, create session s1 with the value provided through "user name" and display the information "Welcome to the session".

10

4

3

5. Assume that a collection "train" is available in "classdb". The collection contains train number, name, source, destination and fare as fields. Write a Node JS program with express and mongoose middleware to insert a document into the collection trains. Get the input for these through a HTML form. Check that the given train number is existing in the collection and display the message train already existing, otherwise insert the document and display the message "Document is inserted successfully". Display the documents in a HTML table format

10

4

3