


VIT

Vellore Institute of Technology

Final Assessment Test – May 2024

Course: BITE304L - Web Technologies

Class NBR(s): 3885 / 3889 / 3895 / 3986

Time: Three Hours

Slot: D1+TD1

Max. Marks: 100

- KEEPING MOBILE PHONE/ELECTRONIC DEVICES EVEN IN 'OFF' POSITION IS TREATED AS EXAM MALPRACTICE
- DON'T WRITE ANYTHING ON THE QUESTION PAPER

Answer any TEN Questions
(10 X 10 = 100 Marks)

1. Write a HTML and CSS code to design the following form components with well formatted layout.

2. Write a HTML and Bootstrap to design the following layout as grid layout with the specified constraints.

- a) Menu card heading must be white color with 25 px in font size.
- b) All item heading must be in white color with font size as 15 px
- c) Remaining text contents are yellow in color.



3. Write the JavaScript code to accompany the HTML code, so that when the Delete button is clicked, any button whose text value is divisible by the number written in the text field is removed from the page. You may assume that a valid number has been typed in the text field.

Divisible by: Delete

Click a button:

For example, after typing the number 2 into the text field and pressing Delete, the following should be the page appearance:

Divisible by: Delete

Click a button:

4. Write the jQuery code to add behavior to the following page that has a user interface for entering grades on homework assignments.

- You will compute the percentage of points earned with an optional curve.
 - When the "Compute!" is clicked, your code should use the values in the text boxes to compute the percentage (rounded to the nearest percent).
 - If the "Curve+5" checkbox is checked, add +5 percent up to a maximum of 100% total.
- You should insert the percentage into the page as a new div added to the end(bottom) of the existing page section with the id of result area.

If the overall percentage is 60% or more, give your newly created div a CSS class of pass; otherwise give it a class of fail.

- Assume valid input i.e., assume that when "Compute!" is clicked, the user will have already typed valid text into every box that can be interpreted as an integer.

These screenshots show the initial state and state after scores have been typed and "Compute!" has been clicked.

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

50

5. Write the Angular JS code to validate the form in Question 1 using regular expression with the following constraints and display the error aside of the HTML element.
- First name and last name must be 10 to 15 characters.
 - Phone number must be 10 digits.
 - Valid student VIT mail id.
 - Password within range of 8 to 10 alphanumeric characters and must be end with "@" symbol.
 - Password and retype password must be same.
6. (a) Briefly explain HTTP request format and HTTP response format with an example. [5]
- b) Discuss Spring Boot framework with an example. [5]
7. The Management has announced the September month bonus for their employees. The finance department is in the process of calculating the salary by satisfying the following criteria:
- Experience Bonus**
- >=15 years Rs.20000
- <15 years Rs.10000
- The employee data such as employee id, employee name, Date of joining, Organization are retrieved as the response from the server in the JSON format. The finance officer fetches this information and calculates the salary concerning the year of experience. Write the AJAX code for the above scenario.
8. Write the code using NodeJS and ExpressJS for an online cloth ordering form. This server-side code should provide a link for the user to view the receipt with order details and the total amount.

Order Form

Please fill in your information and we'll be sending your order in no time.

Name :

Email :

Address :

T-shirt model :



Quantity :

Purchase

Write the code using Node JS and Express JS for online Dosa Order form is created with fields: Order no (should be unique and incremented automatically), Date, type of dosa, Quantity and Bill amount. If more than 4 quantity, 5% discount given from the total amount. Write the server side code using Node JS and Express JS that calculates the price using the formula. (Total = (cost of dosa * no of quantity) – discount amount. The cost of different dosa type are as follows.

- Baby Corn Masala Dosa Rs.95
- Alu Mix Dosa Rs.115
- Cauliflower Dosa Rs.135

10. Write the code in Node JS and Express JS using Cookies for a Login form page that validates a password, and protects itself by refusing requests if too many attempts are made in quick succession. Accept a POST parameter with the key password:

- If the given password is correct, then your code should produce a status code 200 with a plain text response of "success".
- If the given password is incorrect, your code should produce a status code 200 with a plain text response of "failed".
- When more than 5 failed password attempts have been made, then your server-side code should enter a state where it rejects the current request and all future requests with a status code of 429 (Too Many Requests) and produces no output.
- If the client does not pass the password parameter, then you should respond with a status code 400 with a plain text message of "password parameter required"

11. a) Create a HTML form with elements such as Register number, name of the student and marks for 3 courses. Get the details of 5 students and insert into the MongoDB collection. [6]

b) Using ExpressJS application in HTML table format to list all the students those who are secured above 50 % in each course. [4]

12. Elaborate the usage of function and class component with a sample React code snippet.

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