Final Assessment Test (FAT) – November/December 2022

Programme	B.Tech.	Semester	Fall Semester 2022-23
Course Title	INTERNET AND WEB PROGRAMMING	Course Code	CSE3002
Faculty Name	Prof. Premalatha M	Slot	A2
		Class Nbr	CH2022231000196
Time	3 Hours	Max. Marks	100

Section A (4 X 10 Marks)
Answer All questions

1. Consider the Flipkart online shopping website in which user sign in and search for products. The selected items along with the quantity and amount are added in the Cart, when the user clicks the "Add to Cart" button. If the user wishes to make the payment then the list of items along with quantity, price, total amount are displayed with the mode of payment is provided. The user can track the delivery status as well. **[10]**

   Explain the working principle of Web browser and web server for the given specification.

2. ABC jewellery shop has installed software for selling their products. It applies 3%, 10%, 12% and 15% wastages from total weight (in grams) of jewel for the products Silver, Gold, Platinum and Diamond respectively. Also applies 3% of GST for the total amount of purchase. Develop a web page using HTML and external JavaScript for the given scenario. **[10]**

   a. Create a form to read the Customer Name, Mobile No., Address, Jewel Type (check box), Weight, Price and a Compute button. Apply appropriate style to form.

   b. When the Compute button is clicked twice, then it should call the Compute() function to perform the following validation. If any validation is failed then display appropriate user defined message using Exception Handling.

       i. None of the input is left empty

       ii. Jewel Type field should have only alphabets

       iii. Weight and Price should be numeric

       iv. If the valid type (Silver, Gold, Platinum and Diamond) is selected with the wieght and price of the product, then estimation is done as specified in the example.

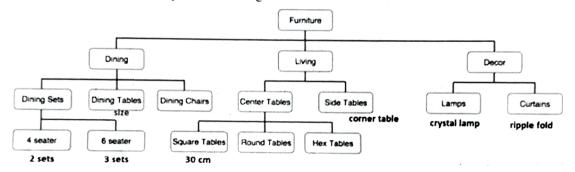   For example : If the purchased product is Gold

   Total=weight*price per gram

   wastage=total*0.1 // 0.1 denotes 10%f wastage

   gst=(total+wastage)*0.03 // 0.03 denotes 3% GST

   net=total+wastage+gst

       v. If the type of product is other than Silver, Gold, Platinum and Diamond then throw an exception to display "Invalid Type".

   If the total amount to be paid is greater than Rs. 2,00,000 then throw an exception to display "Please provide your PAN Number" and read the PAN number using prompt box.

3. Create an HTML page containing at least two paragraphs and write two JavaScript functions to perform following two tasks. **[10]**

a. Write a function called atinLay() to convert text from English into Pig Latin. To change text to Pig Latin, you take the first letter of each word to the end and add "ay" to it. Then you move this syllable to the end of the word, preceded by a hyphen. The rule is only true for words beginning with a consonant; if the first letter of a word is a vowel (aeiou), then the word is unchanged. For example, the sentence "Kelly and Brent are neat" would be translated to "elly-Kay and rent-Bay are eat-nay" in Pig Latin. You should also write code to attach the atinLay function as an onclick event handler to all paragraphs on a page so that when you click a paragraph, the text is converted to Pig Latin. [6]

b. Write another function to adjust font sizes of the text in paragraphs. You can use div and span with id "smaller" or "bigger". If a user clicks the element with the id of "smaller" all paragraphs should decrease in font size by 2 pt. Similarly, if a user clicks the element with the id of "bigger," all paragraphs should increase in font size by 2pt. [4]

4. The furniture shop owner wants to implement a website to publish online shopping for commercial purposes. The specification is given below with the tree structure. **[10]**

a. Write the XML document for the tree given above. (3 marks)
b. Write an external DTD for the XML document. (3 marks)
c. Apply the following styles using external CSS. (4 marks)
i. The font size of the side tables is 18 px and the font type is Times New Roman.
ii. The center tables should be highlighted in italic and bold, and the font color should be red.

Section B (4 X 15 Marks)
Answer All questions

5. You can create a static page that hosts a conference or event using HTML5 and CSS. **[15]**
   a. Create a form to get the details like first name, last name, gender, email id, password, name of the country, date of birth and file upload for id proof.(4 marks)
   b. Mention various speaker, venue, and schedule links in the header area at the top. Make sure all the header information has blue background and formatted text with white font.(2 marks)
   c. Create a table that displays the session schedule. The date, session, name of the resource person and their topic should be considered as fields. The header fields should contain red background and white formatted text. Make a thick border for the overall layout.(3 marks)
   d. Display all session rooms of the conference in a single image. On clicking the respective session room, the venue details should appear. (3 marks)
   e. Use audio, video files along with animation in the web page.(3 marks)
   Use an external CSS file to provide the colour information for the border, text height, width, alignment of the table. Also use it for the information provided.

6. a) A company maintains the following information: Empid, Name, Address, Designation, Department and Gross Salary . Perform the following operation in it using node.js and mangoDB. (10 marks)

i. Create Database and Collection (4m)

ii. Insert, Update and Delete a record (2m)

iii. Limit, Find and Query a record (2m)

iv. Perform sorting in the database in both ascending and descending order(2m)

b) Create a node.js file that reads a HTML file and returns the message displayed in its paragraph tag "I will get good marks in FAT". Also create a new file and perform the following operations: (5 marks)

i. Open the file

ii. Update the file by appending new text like "IWP" and replacing it with "Easy Exam"

iii. Delete the file

7. Design a form for a Bank to input details of a customer and after processing the details (as mentioned below) send an email to the customer. **[15]**

   a. Create a html form to input details of person those who want to take loan from a bank like Name, Email_id date_of_birth, phone_no, loan_amount and radio buttons to select type of loan like personal, housing or vehicle. [5]

   b. Using PHP calculate the age of the person till today. [3]

   c. Based on the age and type of loan (as mentioned below) calculate the applicable EMI and send a mail to customer attached with a text file which contains Loan amount, ROI and EMI. [5+2]

Loan type	Age range	ROI	Loan Tenure
Vehicle	30-40	8%	30
Personal	40-50	10%	20
Housing	50-60	12%	15

(Note: ROI is rate of interest, EMI will be calculated as

$$EMI = P \times r \times (1 + r)n/((1 + r)n - 1)$$

where P = Loan amount, r = interest rate, n = tenure in number of months)

8. Create a PHP/MYSQL script for a banking application that allows you to enter your ID and password. Upon entry, the customer can view and make transactions with the bank account database with the fields of user_id, amount, and date_of_transaction. Use sessions and cookies appropriately for the following constraints. **[15]**

   a. When the same user logs in to their account again after some time, it should delete the earlier cookie information. (4 marks)

   b. When the same user logs in again to the account, it should automatically display the password using a cookie file. (5 marks)

   c. Upon successful login, it should display the user-id in the right top corner of the webpage. (3 marks)

   d. Retrieve the records based on user_id that have a value of more than 50000 rupees from 20/10/2021 to 25/12/2021. (3 marks)

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