Assignment 2

Subject: PPWJ (CSE 3838)
Session: Sep 2025 to Jan 2026
Branch: CSIT
Section: All
Course Outcomes: CO1

Learning Levels: Remembering (L1), Understanding (L2), Application (L3), and Analysis (L4)

Q No.	Questions	Learning Levels
Q1	A school is building a web-based calculator for its students. The calculator should: -Take two numbers as input. -Perform addition, subtraction, multiplication, division, and modulus. -Display the results clearly to the user. Write a JavaScript program to implement this calculator.	L2
Q2	A flooring company wants to build a small Tile Calculator App.The app should help customers find out how many rectangular tiles are needed to cover a floor. -The program must take the length and width of the floor as input. -It should also take the length and width of one tile as input. Using arithmetic operators, the program should calculate: 1. The area of the floor: $A_{floor} = \text{length}_{floor} \times \text{width}_{floor}$ 2. The area of one tile: $A_{tile} = \text{length}_{tile} \times \text{width}_{tile}$ 3. The number of tiles required: $N = \frac{A_{floor}}{A_{tile}}$ Additionally, display the perimeter of the floor for boundary design purposes.Write a JavaScript program to perform these calculations using arithmetic operators.	L2

Q3	Imagine Riya works as a software developer in a company. Her basic salary is Rs.50,000. According to company policy: She gets 20% HRA (for housing). She gets 10% DA (for cost of living). She pays 5% income tax on the total salary. Write a JavaScript program to calculate the net salary of an employee after deductions and allowances.Use conditional (ternary) operator	L3, L4
Q4	Imagine a school sports event: Students will be selected for a special relay race only if their roll number is divisible by both 3 and 5. So if a student's roll number is 30, 45, 60, they qualify. If it's just divisible by 3 or just by 5, they don't qualify. This is exactly how the program works — it checks if a number meets both conditions at once.Use modulus and conditional operator.	L2
Q5	A leap year is a year that has 366 days instead of the usual 365 days. The extra day comes in February (29 days instead of 28). The rules for deciding a leap year are: Years like 2012, 2016, 2020, 2024 are leap years. Years like 1900, 2100 are not leap years (divisible by 100 but not by 400). Years like 2000, 2400 are leap years (divisible by 400).Your program should print Year 2012 is a leap year. Use logical and ternary operator.	L3
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