United International **University (UIU)**

Dept. of Computer Science & Engineering (CSE)

Final Exam   Year: 2025   Trimester: Spring

CSE 4165/CSE 465 Web Programming

Total Marks: 30   Duration: 2 Hours

Any examinee found adopting unfair means will be expelled from the trimester / program as per UIU disciplinary rules.

1.	**JAVASCRIPT:** Create a JavaScript application where users can test their password strength and get real-time feedback.
	index.html:
	Create a password input field (input type password), a "Check Strength" button, and below that a label field to display strength feedback and scoring results.
	script.js:
	   1. Generate a target strength score of 100 points for a "Very Strong" password.
	   2. Take the user's password input from the HTML file.
	   3. Inside a function:
	       ○ Calculate password strength based on these criteria:
	          ■ Length: +10 points for every 2 characters (minimum 6 characters required)
	          ■ Uppercase letters: +15 points if present
	          ■ Lowercase letters: +15 points if present
	          ■ Numbers: +20 points if present
	          ■ Special characters (!@#$%^&*): +25 points if present
	       ○ Display strength levels: "Very Weak" (0-30), "Weak" (31-50), "Medium" (51-70), "Strong" (71-90), "Very Strong" (91+)
	       ○ If password reaches 100+ points, display "Perfect Password!" and show a success message
	       ○ Keep track of how many attempts the user has made
	       ○ If the user makes more than 8 attempts without reaching "Strong" level, display "Need practice!" and suggest password tips
		[10]

Sample Input	Sample Output
abc	Very Weak
hello123	Weak
Strong@Pass	Strong
Perfect@Pass123	Perfect Password!

2.	**PHP:** It's time to organize the annual UIU Tech Fest, and you need to calculate the budget for venue booking. Write a PHP function that takes three integers as input: the number of expected attendees, the cost per person for venue arrangement, and the maximum capacity of available venues. The function should calculate the minimum number of venues needed to accommodate all attendees (you must book complete venues; you cannot book partial venues). The function should also calculate how many empty seats will remain after all attendees are seated. Moreover, if each venue costs 15,000 BDT regardless of occupancy, how much money is wasted on empty seats?	**[10]**

Sample Input (from html file text fields)			Sample Output (print on PHP file)		
Attendees	Cost per Person	Venue Capacity	Total Venues	Empty Seats	Wasted Money (BDT)
250	120	80	4	70	8,400

180	150	100	2	20	3,000
300	100	75	4	0	0

3.	**PHP & MYSQL:** Create a database named 'uiutech_final' and a table named 'employee_final'. The employee table has the following structure and values:	**[10]**

EmployeeID	EmployeeName	DepartmentID	DepartmentName	Salary	PerformanceRating
1	Arif Rahman	201	Software Development	45000	B
2	Marium Khan	201	Software Development	52000	A
3	Sabbir Hossain	202	Quality Assurance	38000	C
4	Samira Begum	203	UI/UX Design	42000	B

Now, do the following (write full code, not just SQL queries):

1. Show the total number of employees who received each performance rating (A, B, C, D) across all departments.
2. If an employee has a salary below 40,000 BDT and their current performance rating is not 'D', change their performance rating to 'C'.
3. If an employee has a salary greater than 50,000 BDT, add a 5,000 BDT bonus to their salary, but only if the resulting salary is less than or equal to 60,000 BDT.
4. For each department, display the department names and the number of employees working in that department, sorted by the number of employees (largest department first).

Sample SQL Query

```
$servername = "localhost";
$username = "username";
$password = "password";
$dbname = "myDB";
$conn = new mysqli($servername, $username, $password,
$dbname);
if ($conn->connect_error) {
  die("Connection failed: " . $conn->connect_error);
}
$sql = "SELECT id, firstname, lastname FROM MyGuests";
$result = $conn->query($sql);
if ($result->num_rows > 0) {
  while($row = $result->fetch_assoc()) {
    echo "id: " . $row["id"]. " - Name: " . $row["firstname"]. " " .
$row["lastname"]. "<br>";
  }
} else {
  echo "0 results";
}
$conn->close();
```

```
$servername = "localhost";
$username = "username";
$password = "password";
$dbname = "myDB";
$conn = new mysqli($servername, $username, $password,
$dbname);
if ($conn->connect_error) {
  die("Connection failed: " . $conn->connect_error);
}
$sql = "UPDATE MyGuests SET lastname='Doe' WHERE id=2";
if ($conn->query($sql) === TRUE) {
  echo "Record updated successfully";
} else {
  echo "Error updating record: " . $conn->error;
}
$conn->close();
```