END-SEMESTER EXAMINATION, January-2024
Modern Web Development Workshop – 1 (CSE 2191)

Programme: B.Tech (CSIT) **Semester: 3rd**
Full Marks: 60 **Time: 3 Hours**

Subject/Course Learning Outcome	*Taxonomy Level	Ques. Nos.	Marks
Understand Dynamic Web Content – understand the concept of dynamic web content and its importance in modern web development	L1	2,3	
Setup Proficient Development Server – setup and configure a development server to host and test web applications effectively	L1, L2	3(b)	
Apply Knowledge of PHP Programming – acquire the skills needed to write, debug, and maintain PHP code, including knowledge of expressions, control flow, functions, and objects	L3, L4, L5	3,4	
Handle Data with PHP – demonstrate proficiency in working with data using PHP, including manipulating arrays, form handling, and implementing cookies and sessions for user data management and authentication	L4, L6	6,7,10	
Integrate Database with MySQL – proficient in integrating MySQL databases into web applications, including database design, querying and basic administration	L3, L1, L6	10	
Explore JavaScript – foundation understanding of JavaScript including expressions, control flow and basic scripting techniques enabling them to add interactivity to web applications	L2, L3	8,9	

*Bloom's taxonomy levels: Remembering (L1), Understanding (L2), Application (L3), Analysis (L4), Evaluation (L5), Creation (L6)

Answer all questions. Each question carries equal mark.

1.	(a)	How would you sanitize user input in a PHP application to prevent SQL injection?	
	(b)	Explain the differences between GET and POST methods in form submissions, and when would you use each?	
	(c)	Discuss the advantages and disadvantages of using MySQLi over PDO in PHP.	
2.	(a)	Describe the purpose of the "SESSION" superglobal in PHP and how it can be utilized in web development.	
	(b)	Explain the concept of prepared statements and how they contribute to improving the security of database queries.	
	(c)	How would you implement user authentication and authorization in a PHP and MySQL-based web application?	
3.	(a)	Discuss the role of cookies in web development and explain how you would set, retrieve, and delete cookies using PHP.	
	(b)	Describe the steps involved in connecting a PHP application to a MySQL database.	
	(c)	How do you handle file uploads securely in a PHP application, and what considerations should be taken into account?	2
4	(a)	What is the purpose of the "header" function in PHP, and how can it be used for HTTP redirection?	2
	(b)	How would you implement a pagination system in a PHP and MySQL application to efficiently display large sets of data?	2
	(c)	Explain the differences between server-side and client-side validation in web forms, and when would you use each?	2
5.	(a)	Discuss the role of PHP sessions in maintaining user state across multiple pages and how session hijacking can be prevented.	2
	(b)	How would you implement password hashing in PHP for secure user authentication, and why is it crucial?	2
	(c)	Explain the use of the "foreach" loop in PHP, especially in the context of iterating through arrays and handling key-value pairs.	2
6.	(a)	Explain the difference between "==" and "===" in PHP.	2
	(b)	What is the role of the "include" and "require" statements in PHP?	2
	(c)	What is the purpose of the "mysqli_query" function in PHP?	2
7.	(a)	What is the use of the "$_GET" superglobal in PHP? State with an implementation level code.	2
	(b)	How do you declare an associative array in PHP?	2
	(c)	How can you handle errors in PHP using the "try," "catch," and "finally" blocks?	2

8.	(a)	How do you set and retrieve cookies in PHP? State with an implementation level code.	2
	(b)	Provide a brief explanation of what JavaScript is and its primary use in web development.	2
	(c)	Explain how console.log() is used and what it helps developers accomplish.	2
9.	(a)	List and briefly explain the basic data types in JavaScript.	2
	(b)	Explain the difference between let, const, and var in JavaScript.	2
	(c)	Describe what scope is and how it affects the visibility and accessibility of variables in JavaScript.	2
10	(a)	Write a query to insert 5 random values into a MySQL database (student) having table name (studentRecords) and columns as 'student_id', 'student_name', 'student_reg', 'student_mob_num'.	2
	(b)	Write code to display all the inserted data of question 10(a) in a table of webpage. Use database as 'student' hosted on localhost having ALL privileges to username as <your_name> and password as '1234'.	2
	(c)	Write down the contents of fourth iteration of print_r($row) that you will get after executing while($row=mysqli_fetch_assoc(<database query for selecting everything from studentRecords>)	2