PHP with MySQL
[As per Choice Based Credit System (CBCS) Scheme]
(Effective from the Academic Year 2021-22)
As Per NEP 2020

SEMESTER – V

Course Code	**21BCA51**	CIE Marks	50
Number of Lecture Hours/Week	03	SEE Marks	50
Total Number of Lecture Hours	42	Exam Hours	03
CREDITS – 03			

Course Objectives:

- To introduce the history of computer and computer components.
- To make students aware of different number systems and different levels of computer
- The make students understand operating system, computer memory and internet.

Revised Bloom's Taxonomy Levels: L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analyzing, L5 – Evaluating, and L6 – Creating

Module 1	Teaching Hours	RBT Levels
Getting Up and Running: Installation QuickStart Guide with XAMPP, Installing and Configuring MySQL, Installing and Configuring PHP, Installing and Configuring Apache. **Introduction & Building Blocks of PHP**: History of PHP, Variable, Global Variables, Superglobal Variables, Datatypes, Changing the type with settype() ,Changing type with Casting, Operators and expression, assignment operator, Arithmetic Operators, concatenation operator, Combined Assignment Operators, Automatically Incrementing and Decrementing an Integer Variable, Comparison Operators, Logical Operators, Operator Precedence, Constant, Predefined Constants.	08	L1,L2, L3,L4, L5,L6
Module 2		
Control Flow Functions in PHP: The if Statement, Using the else Clause with the if Statement, Using the elseif Clause with the if Statement, The switch Statement, Using the ?: Operator. **Loops: -** The while Statement, the do...while Statement, The for Statement, Breaking Out of Loops with the break Statement, Skipping an Iteration with the continue Statement, Nesting Loops **Working with Arrays: -** What are Arrays? , Creating Arrays You, Creating Associative Arrays, Creating Multidimensional Arrays, Some Array-Related Constructs and Functions.	08	L1,L2, L3,L4, L5,L6
Module 3		
Working with Functions: What is function? ,Calling Functions, Defining Functions, Returning Values from User-Defined Functions, Variable Scope, Accessing Variables with the global Statement, Saving State Between Function Calls with the static Statement, Setting Default Values for Arguments, Passing Variable References to Functions, Testing for the Existence of a Function. **Working with Objects: -** Creating an Object Explaining, Properties of Objects, Object Methods, Constructors, Object Inheritance.	08	L1,L2, L3,L4, L5,L6

Module 4		
Working with Strings, Dates and Time: - Formatting Strings with PHP, Working with printf(), printf() and Type Specifiers, Padding Output with a Padding Specifier, Specifying a Field Width, Specifying Precision, Argument Swapping, Storing a Formatted String, A Note About Indexing Strings, Finding the Length of a String with strlen(), Finding a Substring Within a String with strstr(), Finding the Position of a Substring with strpos(), Extracting Part of a String with substr(), Tokenizing a String with strtok(). Manipulating Strings with PHP: -Cleaning Up a String with trim(), ltrim(), and strip_tags(), Replacing a Portion of a String Using substr_replace(), Replacing Substrings Using str_replace, Converting Case, Wrapping Text with wordwrap() and nl2br(), Breaking Strings into Arrays with explode() , Using Date and Time Functions in PHP : - Getting the Date with time(),Converting a Timestamp with getdate(),Converting a Timestamp with date(),Creating Timestamps with mktime(),Testing a Date with checkdate(). Working with Forms: - Creating a Simple Input Form, Accessing Form Input with User-Defined Arrays, Combining HTML and PHP Code on a Single Page, Using Hidden Fields to Save State, Redirecting the User.Sending Mail on Form Submission: - System Configuration for the mail() Function, Creating the Form, Creating the Script to Send the Mail, Formatting Your Mail with HTML, Working with File Uploads, Creating the File Upload Form, Creating the File Upload Script.	10	L1,L2, L3,L4, L5,L6
Module 5		
Introduction to MySQL & Basic SQL Commands: - History of MySQL, MySQL Data Types, Numeric Data Types, Date and Time Types, String Types, Using CREATE TABLE Command, Using the INSERT Command, Using the SELECT Command, Ordering SELECT Results, Limiting Your Results, Using the UPDATE Command to Modify Records UPDATE, Conditional UPDATEs, Using Existing Column Values with UPDATE , Using the REPLACE Command, Using the DELETE Command, Conditional DELETE, Using WHERE in Your Queries, Using Operators in WHERE Clauses, String Comparison Using LIKE, Selecting from Multiple Tables, Using JOIN, Using Subqueries, **Frequently Used String Functions in MySQL: -** Length and Concatenation Functions, Trimming and Padding Functions, Location and Position Functions, Substring Functions, String Modification Functions. **Using Date and Time Functions in MySQL You: -** Working with Days, Working with Months and Years, Working with Weeks, Working with Hours, Minutes, and Seconds, Formatting Dates and Times with MySQL, Formatting Dates and Times with MySQL, Special Functions and Conversion Features	08	L1,L2, L3,L4, L5,L6

Course Outcomes
On successful completion of the course, the students will be able to

CO1: Gain the basic knowledge of PHP Programming.
CO2: Gain the Knowledge of Datatypes, Conditions and Looping Statements
CO3: Gain the Knowledge of Functions , Arrays and Objects
CO4: Gain the Knowledge of Time and Date , String and Forms
CO5: Gain the Knowledge of SQL Commands Create, Update , Insert, delete. |

Question Paper Pattern
The Question Paper will have Ten Questions.

There will be two questions from each module.

Each question will have questions covering all the topics under a module.

The students will have to answer 5 full questions, selecting one full question from each module. |

Text Books:
1.   Sams Teach Yourself, PHP, MySQL and Apache All in One.   Julie C. Meloni
2.   Head First PHP & MySQL: by Lynn Beighley , Michael Morrison
3.   PHP MYSQL and Apache Server by Prof. Shashi Banzal
4.   PHP and MySQL Fundamentals by Mike McGrath
5.   Learning PHP, MySQL & JavaScript by Robin Nixon

Reference Books:
1. PHP: THE COMPLETE REFERENCE 2017 by Steven Holzner
2. Beginning PHP and MySQL From Novice to Professional W. Jason Gilmore