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| I:\OFFICE\Darshan University\Logo\Darshan-University-Logo-horizontal-color.png | **Graduation Level:** | Bachelor of Computer Applications |
| **Course:** | Bachelor of Computer Applications |
| **Subject Name:** | PHP and WordPress |
| **Subject Code:** | 2304CS403 |
| **Semester:** | 3 |

**Type of Course:** Core Courses

**Prerequisites:** Web Designing and basic programming concepts.

**Course Objective / Rationale:**

This course enables students to become familiar with core concepts of web programming, Serverside scripting using PHP and basics of wordpress.

**Teaching & Examination Scheme:**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Teaching Scheme** | | | **Credits** | **Examination Marks** | | | | **Total Marks** |
| **L** | **T** | **P** | **C** | **Theory Marks** | | **Practical Marks** | |
| **ESE (E)** | **PA (M)** | **ESE (V)** | **PA (I)** |
| 3 | - | 4 | 5 | 70 | 30 | 25 | 25 | 150 |

**Contents:**

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| --- | --- | --- | --- |
| **Unit No.** | **Topic** | **Total Hours** | **Weightage %** |
| 1 | **Introduction to PHP**  Introduction to PHP, Client side scripting v/s Server side scripting, Applications of PHP, Structure of PHP page, Variables, Decision making statements (if and switch), looping statements, Arrays, Types of arrays, Array functions | 10 | 20 |
| 2 | **Functions and Form**  User defined functions, Recursion, Include, Include\_once, Require, Require\_once functions, Form attributes, Receiving data submitted using different methods like GET, POST and REQUEST, PHP String, PHP String functions | 9 | 20 |
| 3 | **Form Handling and Session Management**  Regular expression function, Validation using Regular Expression, Uploading a file, File handling, Query string, Session management using session and cookie | 8 | 20 |
| 4 | **Database programming using PHP**  Basic MySql command, PHP functions for database connectivity, What is CRUD, Implementation of CRUD operations using PHP, Prepared statement in PHP, Stored procedure execution in PHP | 10 | 20 |
| 5 | **Introduction to WordPress**  Introduction of wordpress, Wordpress installation, Basics of the wordpress, Creating a new post, Createing a new page, Difference b/w post and page, Creating a new categories, Createing a new tags, Categories V/s Tags, Insert media, Creating a link, Working with widget, Working with menus, Introduction to themes, Installing plugins, Creating users, Working with WooCommerce plugin | 8 | 20 |

**Suggested Specification Table with %Marks (Theory)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Distribution of Theory Marks (%)** | | | | | |
| **R Level** | **U Level** | **A Level** | **N Level** | **E Level** | **C Level** |
| **10%** | **35%** | **55%** | **-** | **-** | **-** |

R: Remembrance; U: Understanding; A: Application, N: Analyse; E: Evaluate and C: Create and above Levels (Revised Bloom’s Taxonomy)

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| **Distribution of Theory Marks** | | | | | |
| **R Level** | **U Level** | **A Level** | **N Level** | **E Level** | **C Level** |
| **7** | **24** | **39** | **0** | **0** | **0** |

**Design based Problems (DP)/Open-Ended Problem: (If Any) : NA**

**Course Outcome:** After completing the course student will be able to create a static and dynamic websites with database connectivity.

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| CO - 1 | **use** conditional statements, looping statements and arrays in PHP. |
| CO - 2 | **implement** functions and form processing. |
| CO - 3 | **demonstrate** the use of file, file upload and session management. |
| CO – 4 | **execute** the database using PHP. |
| CO - 5 | **apply** wordpress and also able to create websites using wordpress. |

**Suggested List of Experiments / Exercises:**

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| **LAB No.** | | **Practical** |
| 1 | | **Demonstration of basics of PHP programming**   1. WAP to display “Hello World”. (A) 2. WAP to display a message using variable. (A) 3. WAP to print name of month based on given number of month (i.e. 1 -> January, 2 -> February…). (B) 4. WAP to swap values of two variables with the help of 3rd variable. (B) 5. WAP to swap values of two variables without using 3rd variable. (C) |
| 2 | | **Implementation of decision making statements (Part – I)**   1. WAP to check whether the given number is odd or even. (A) 2. WAP to check whether the given number is positive, negative or Zero. (A) 3. WAP to find greatest number from 2 numbers. (A) 4. WAP to find greatest number from 3 numbers. (B) 5. WAP to convert temperature from Fahrenheit to Celsius. (B) 6. WAP to print class of result based on percentage (i.e. less than 40% -> Fail, 40% to 50% -> Pass Class, 50% to 60% -> Second Class, 60% to 70% -> First Class, above 70% -> Distinction). (C) 7. WAP that reads a number in meters, converts it to feet, and displays the result. (C) |
| 3 | | **Implementation of decision making statements (Part – II)**   1. WAP to take a value from user from 1-7 and display current day using switch case. (If 1-Monday, 2-Tuesday, etc….) (A) 2. WAP to find a diameter from given area of circle. (A) 3. WAP to make a Simple Calculator using switch...case. (B) 4. WAP to print class of result based on percentage using switch case(i.e. less than 40% -> Fail, 40% to 50% -> Pass Class, 50% to 60% -> Second Class, 60% to 70% -> First Class, above 70% -> Distinction). (B) 5. WAP that prompts the user to enter a letter and check whether a letter is a vowel or consonants. (C) 6. Three sides of a triangle are entered through the keyboard. WAP to check whether the triangle is isosceles, equilateral, scalene or right-angled triangle. (C) |
| 4 | | **Implementation of various loops in PHP**   1. WAP to print first n numbers using for, while and do while loop. (A) 2. WAP to print first n odd numbers using for, while and do while loop. (A) 3. WAP to demonstrate foreach loop. (A) 4. WAP to generate Fibonacci series of N number. (N-> Take input from user) (B) 5. WAP to calculate and display sum and product of first N number. (B) 6. WAP to check whether the given number is prime or not. (C) |
| 5 | | **Implementation of nested loops in PHP**  1. WAP to print first n numbers using for, while and do while loop.   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | \*  \*\*  \*\*\*  \*\*\*\*  \*\*\*\*\* | 5  54  543  5432  54321 | \*  \* \*  \* \* \*  \* \* \* \*  \* \* \* \* \* | 1  2 2  3 3 3  4 4 4 4  5 5 5 5 5 | 1  2 3  4 5 6  7 8 9 10 | \*  \* \*  \* \* \*  \* \*  \* | | (A) | (A) | (B) | (B) | (C) | (C) |  1. WAP to print all Armstrong number between two given numbers. (C) |
| 6 | | **Implementation of array (Part – I)**   1. WAP to create numeric array and print it. (A) 2. WAP to create associative array and print it. (A) 3. WAP to create multidimensional array and print it. (B) 4. WAP to demonstrate the use of various array function on an array. (C) |
| 7 | | **Implementation of array (Part – II)**   1. WAP to count number of even or odd number from an array of n number. (A) 2. WAP to create user define function for adding two numbers and display the result. (A) 3. WAP to accept n numbers in an array. Display the sum of all the numbers which are divisible by either 3 or 5. (B) 4. WAP to accept n numbers in an array. Now, enter a number and search whether the number is present or not in the list of array elements by using linear search. (C) |
| 8 | | **Demonstration of function (Part – I)**   1. WAP to create user define function for print your name and call it using all user defined functions. (A) 2. WAP to create calculator using all four types of UDF. (A) 3. WAP to calculate simple interest using method. (B) 4. WAP to generate Fibonacci series of N given number using method. (C) |
| 9 | | **Demonstration of function (Part – II)**   1. WAP that calculates area of circle, triangle and square using user defined function. (A) 2. WAP to find maximum number from given three numbers using method. (A) 3. WAP to accept a number and check whether the number is prime or not. Use method name check (int n). The method returns 1, if the number is prime otherwise, it returns 0. (B) 4. WAP to take two values as an input from the user and display all the prime numbers between the two given numbers using function. (C) |
| 10 | | **Implementation of recursion and form processing**   1. WAP to calculate sum of first n numbers using recursion. (A) 2. WAP to demonstrate the use of Include, Require, Include\_Once and Require\_Once. (A) 3. WAP to demonstrate the use of GET, POST and REQUEST methods. (A) 4. WAP to calculate factorial of a number using recursion. (B) 5. Demonstrate the use of PHP in webpage design for partition of page into different sections like header, footer, sidebar, main content, etc… (B) 6. Design static website for a college use PHP to reuse code of navigation bar and footer in each page. (C) 7. WAP to check whether the number is prime or not using recursion. (C) |
| 11 | | **Demonstration of server side validation**   1. WAP to demonstrate server side validation for name, email, mobile number. (A) 2. Design a student registration form and retrieve data in controller page using following Method: GET, POST, and REQUEST. (B) 3. Implement server side validation on student registration form using PHP. (B) 4. Implement server side validation on employee registration form using PHP. (C) 5. Design a employee registration form and retrieve data in controller page using following Method: GET, POST, and REQUEST. (C) |
| 12 | | **Demonstration of file upload**   1. Create a webpage which accepts a file and upload it in specified folder on server. (A) 2. Design a profile page which allows changing profile picture dynamically. (B) 3. Create a webpage which accepts a image file in jpg or jpeg or png format only and that to maximum of 1MB. (C) |
| 13 | | **Implementation of files**   1. Write a program to create file named “students.txt” to store names of the students. (A) 2. Write a program to create file named “students.txt” to read names of the students. (A) 3. Write a program to create file named “employee.txt” to store empno, name, gender and mobileno. Open the same file again to display the content of the file. (A) 4. Write a program to append the file named “students.txt ” to add details of 3 new students in a file. (B) 5. Write a program to read a csv file named “result.csv”. (B) 6. Write a file named “teachers.txt” and copy the content of file named “employee.txt” in it. (C) 7. Write a program to delete a file named “employee.txt”. (C) |
| 14 | | **Demonstration of session management using COOKIES and SESSION**   1. WAP to demonstrate the use of COOKIE. (A) 2. WAP to demonstrate the use of SESSION. (A) 3. Create static login application using cookie in PHP. (B) 4. Create static login application using SESSION in PHP. (B) 5. Create a webpage showing multiple items with add to cart and purchase functionality and on click of purchase it will redirect user to bill page that will show the detailed bill using SESSION. (C) 6. Create a webpage showing multiple items with add to cart and purchase functionality and on click of purchase it will redirect user to bill page that will show the detailed bill using COOKIES. (C) |
| 15 | | **Demonstration of basic sql commands and PHP functions for database connectivity.**   1. Understanding and Working with Basic SQL Commands (A) 2. Understanidng and Working with PHP functions for database connectivity (A) 3. WAP to work with all the basic sql commands on a sample database. (B) 4. WAP to check database connectivy on a sample database. (C) |
| 16 | | **Implementation of CRUD operation using PHP (Part – I)**   1. Demo program to understand CRUD operations using PHP. (A) 2. Implement Insert and Delete database operation on students table from webpage using PHP. (A) 3. Implement Select and Update database operation on students table from webpage using PHP. (B) 4. Create a registration form to implement insert and select database operation. (C) |
| 17 | | **Implementation of CRUD operation using PHP (Part – II)**   1. Implement Insert and Delete database operation on employees table from webpage using PHP. (A) 2. Implement Insert and Delete database operation on employees table from webpage using PHP. (B) 3. Modify the program Lab 16(4) of registration form to implement update and delete database operation. (C) |
| 18 | | **Demonstration of prepared statement and stored procedure**   1. Implement CRUD operations on students table using prepared statement in PHP. (A) 2. Implement CRUD operations on students table using stored procedure in PHP. (A) 3. Modify the program Lab 16(4) to implement prepared statement in it. (B) 4. Modify the program Lab 16(4) to implement stored procedure in it. (C) |
| 19 | | **Implement of CRUD, SESSION/COOKIES, Prepared Statement, Stored Procedure in a website**   1. Create a simple login page. (A) 2. Apply the use of COOKIES/SESSION in login page created in Lab 19(1). (B) 3. Implement complete login application using PHP, also use cookie/session to provide remember me functionality. (C) |
| 20 | | **Demonstration of wordpress installation, post creation and post publishing**   1. Download and install WordPress on the Xampp server. (A) 2. Create minimum 3 posts in WordPress and publish it with text and images. Use different post formats depending on what you want to publish. (A) 3. Create 2 professional posts for travel blog. (B) 4. Create 2 professional posts for cricket. (C) |
| 21 | | **Demonstration of wordpress pages**   1. Create minimum 2 pages in WordPress and publish. Use different page formats depending on the content that is to be published. (A) 2. Create 2 pages for travelling website. (B) 3. Create 2 pages for ecommerce website. (C) |
| 22 | | **Demonstration of wordpress menus**   1. Create, edit, and change categories and Tags for Multiple Posts and pages. (A) 2. Create, edit, and change categories and Tags for travelling website pages created in Lab 21 (2). (B) 3. Create, edit, and change categories and Tags for ecommerce website pages created in Lab 21 (3). (C) |
| 23 | | **Demonstration of wordpress widgets**   1. Use different Widgets depending on the posts and pages. (A) 2. Set the core settings of WordPress for the given content and add a new user. (A) 3. Use different Widgets for travelling website pages created in Lab 21 (2). (B) 4. Use different Widgets for ecommerce website pages created in Lab 21 (2). (C) |
| 24 | | **Demonstration of wordpress themes**   1. Install and activate the Theme in wordpress. (A) 2. Create 2-3 different pages using different themes. (A) 3. Apply theme in all the pages created so far in travelling website. (B) 4. Apply theme in all the pages created so far in ecommerce website. (C). |
| 25 | | **Demonstration of woocommerce plugin of wordpress**   1. Install and activate WooCommerce Plugin in WordPress.  Create content writing for E-commerce sites and product description that sells online. Install and activate WooCommerce Plugin in WordPress.  Create content writing for E-commerce sites and product description that sells online. Design coupon code for selling product and upload stock of item on site. (A) 2. Create a travelling website using woocommerce. (B) 3. Create a ecommerce website using woocommerce. (C) |
| 26 | | **Implementation of wordpress in a website**   1. Create content writing for it website using woocommerce. (A) 2. Update and continue working in travelling website using woocommerce. (B) 3. Update and continue working in ecommerce website using woocommerce. (C) |
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**Learning Recourses:**

1. **Text & Reference Books:** 
   * PHP for Web by Larry Ullman
   * Head First PHP and MYSQL by Lynn Beighley and Michal Morrison
   * PHP and MYSQL Web Development by Luke Welling and Laura Thomson
   * WordPress for Beginners 2022 by Dr. Andy Williams
   * WordPress All-in-one for Dummies by Lisa Sabin-Wilson
2. **Major Equipment:NA**
3. **Software: xampp, wordpress**
4. **Learning Websites:**

<https://www.php.net/>

<https://www.w3schools.com>

<https://www.wordpress.com>