Kadi Sarva Vishwavidyalaya, Gandhinagar

MASTERS OF COMPUTER APPLICATION (MCA)

Year – II (Semester – IV) (W.E.F. January 2015)

Subject Name: Open Source Technology in Web Development (LAMP) – MCA-405(A)

Sub Total Credit	Teaching scheme (per week)		Examination scheme				
			MID	CEC	External		Total Marks
	Th	Pr	Th	Th	Th.	Pr.	
5	3	4	25	25	50	50	150

Course Description:

This Course guides the students to – Install MySQL & Apache with PHP, Creating & handling HTML forms, Creating databases and tables and Inserting records in MySQL, Creating custom error handlers, PHP, SQL and MySQL debugging techniques, Setting & accessing cookies & session variables, Upload a file in PHP, Create the advanced PHP scripts needed for a content management site

Objectives:

The purpose of this course is to give students an understanding of Client/Server architecture with their application tools. It deals mainly with client server technologies used in the business as well as web based applications. The course provides an introduction to the development of Web-based applications using PHP, MySQL, and Apache. The course will focus on the PHP programming language. This course also provides how to configure and use different CMS.

Prerequisites:

Working knowledge of Internet and HTML

Course Contents:

UNIT – I: Introduction to PHP: [20%]

Why PHP and MySQL: What is PHP? What is MySQL? Deciding on a Web Application Platform Server- Side Scripting Overview: Static HTML, Client-Side Technology, Server-Side Scripting.
Getting started with PHP: Installing PHP, Escaping from HTML
Learning PHP Syntax and Variables: PHP's Syntax, Comments, Variables, Types in PHP, Output

UNIT – II Control Structures, Arrays and Functions: [20%]

Boolean Expression, Branching, Looping, Using functions
Passing Information with PHP: HTTP is Stateless; GET and POST Arguments, Formatting Form Variables.
String Handling: Strings in PHP, String Functions
Arrays: Creating, Retrieving and deleting value from array, Multi-dimensional Array, Iteration Number Handing: Numerical Types, Mathematical Operators, Mathematical Functions

UNIT – III MySQL Database Integration and Query Processing and Web Forms: [20%]

Introducing Database and MySQL: What is a Database and why database, PHP supported Database. Integrating PHP and MySQL: Connecting to MySQL, Making MySQL Queries, Fetching Data, Multiple connections, Building in error-checking, Creating MySQL database with PHP, MySQL

functions. Performing Database Queries: HTML Tables and Database Tables, Complex Mapping. Integrating Web Forms and Databases: HTML Forms, Basic Form Submission to a Database.

UNIT – IV Advanced PHP: [20%]

Introducing Object-Oriented PHP: What is Object-Oriented Programming? Basic PHP Constructs for OOP, Advanced OOP features. Working with Cookies and Sessions: What is a Session? How Session works in PHP, Session Functions, Cookies. Exception with PHP: Error Handling in PHP.

UNIT – V PHP CMS and Framework [20%]

WordPress: About WordPress: Why WordPress?, Sites Built with WordPress, Installing and Upgrading WordPress, Dashboard and Settings, Working with Content: Post, Pages, Posts vs. Pages, Media Files, Links, Feeds, Importing Content: Importing Blogs, Importing HTML Files , Creating a Basic Theme.

Codeigniter: Introduction to CodeIgniter, Setting up a CodeIgniter Site, Navigating Your Site, Using CI to Simplify Databases, Simplifying HTML Pages and Forms, Simplifying Sessions and Security.

Text Book(s):

1. PHP6 and MySQL Bible –Steve Suehring, Tim Converse and Joyce Park – Wiley India Edition.
2. Beginning wordpress 3 by Stephanie Leary – APRESS Publication
3. CodeIgniter for Rapid PHP Application Development by David Upton – PACKT Publication

Reference Books:

1. PHP and MySQL Web Development – Luke Welling, Laura Thomson – Pearson

Unit wise coverage from Text book(s) : Unit 1 to 4 from Text Book – 1:

Chapter – 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 15, 16, 17 (Full)
Chapter - 20 (Pg. No: 311 -334)
Chapter - 24 (Pg. No: 409 -427)
Chapter - 30 (Pg. No: 497 – 504)

Practical List (Open Source Technology in Web Development (LAMP) – MCA-405A)

1 Write a program that formats a block of text to be inputted by the user, based on the performances chosen by the user. Give options for color, font and size and display the output.

2 Create a web page and execute a PHP file on submission of the form and display the information using PHP.

3 Create an application that validates the proper email address and turns it into a link.

4 Include the user profile application, where user has to pass all validations.

5 Write a PHP program to perform following string operations:
a) print your name.
b) print the size of a string. Pass string as an argument.
c) concat two strings.
d) convert case of string
f) find one string from another.

6 Write a PHP Program to perform following operation on Array where values in array are entered by user
a) Print the values of array.
b) Reverse an array.
c) merge two arrays in sorted manner.
d) add values of all elements of an array.

7 Write a PHP program to display current date and time and display Good Morning / Good Afternoon / Good Evening message according to current time.

8 Create an application to create a cookie, access a cookie and destroy the cookie.

9 Set a session after user's login; maintain the user's data with session. Destroy the session and its data after a period of time.

10 Build an authentication application and restricts the unauthorized user from loading the page. And redirect the page with appropriate message.

11 Develop an application which stores student's info with following fields rno, name, city, gender, percentage. Provide the following facilities like:
a. Search by city
b. Search by Gender
c. Display max and min percentage.

12 Write a program to calculate total weekly pay. If the user enters the number of hours worked and selects the hourly rate of pay from a list box. If overtime has been done, the number of hours is also entered. Over time hours are paid at double rate. A check box displays overtime. Calculate total amount to be paid.

13 Develop an application to add the movie name currently running with following operations:
a. To see all the favorite movie
b. To view top 5 and 10movies

14 Create an application which displays the info about a particular institute which enables the user to see the faculty list according to department.

15 Create an application that keeps track of how many times a visitor has loaded the page.

16 Write a program to do the paginating function to allow the user to go to the first page / last page like, <Prev [1] [2] ……. [10] Next>

17 Write a PHP program to calculate interest for loan using user defined class 'loancalculator'.

18 Write a program for online merchants with following operations:
a. Customer login for further transactions
b. Validates the customer's information
c. System should protect customer's information

19 Develop an application for a shopping cart with following operations:
a. Manage and display the catalog
b. Add, Update and delete the products
c. Process the shipping info
d. Stores the order info
e. Display the summary

20 Display the most popular item to your customer which is purchased the most? If the item is in top 5 display the description to the customer.

21 Create a database application for social gathering containing
a. Information about the location (eg: club house, Party venue)
b. Facilities available in the venue
c. Booking for the specific events
d. Display the booking details for current month and also generate the report for the bill to be paid for a particular booking