

5.2 WEB TECHNOLOGIES

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RATIONALE

A computer engineering diploma student should have good exposure of various web technologies. This course will develop competency amongst the students to design professional database backed dynamic and feature based web sites. The course covers the use of programming with PHP and the concepts of database using MySQL.

COURSE OUTCOMES

After undergoing the subject, the students will be able to:

- CO1: Develop different portal using HTML.
- CO2: Perform various logical operations in PHP.
- CO3: Create database using MySQL.
- CO4: Install and configure Joomla.
- CO4: Perform database connectivity using PHP.

DETAILED CONTENTS

UNIT I

DEVELOPING PORTALS USING HTML

Introduction to HTML 5 and CSS 3. Basic structure of HTML, designing a web page, inserting links images, horizontal rules, comments. Formatting text, title, headings, colors, fonts, sizes, simple tables and forms. HTML tags, hyperlinks. Adding graphics and images, image maps, image files. Using tables, forms, style sheets and frames. Floating of web site/pages.

UNIT II

PHP

Introduction to PHP: How PHP Works , The php.ini File, Basic PHP Syntax, PHP variables, statements, operators, decision making, loops, arrays, strings, forms, get and post methods, functions.

Introduction to cookies, storage of cookies at client side, Using information of cookies. Creating

single or multiple server side sessions. Timeout in sessions, Event management in PHP. Introduction to content management systems based on PHP.

UNIT III

MySQL

Introduction to MySQL, connecting to MySQL, database, creation, insertion, deletion and retrieval of MySQL data using PHP.

UNIT IV

JOOMLA BASICS AND ADMIN

Installing Wamp Server -Installing Joomla on Web Server, Joomla global configuration -Article manager -Archive manager-FrontPage manager -Section manager - Category manager- Media Manager-Menu manager -Component manager -Content Manager-Extensions manager-Module manager-Plugin manager-Template manager-How to install a new module-How to install a new template-How to install a new plugin-How to install a new component-Understanding the concept of Joomla positions -Changing the layout structure by changing the module position.

UNIT V

JOOMLA FRONTEND

Understanding Basic Joomla Template-Customizing Joomla template-Building Custom Joomla Template-Understanding Templatedetails.xml File-Creating Templatedetails.xml File using tmpl_builder Linking CSS-Linking JavaScript-Understanding Include-Displaying Content in Xhtml-Creating Template installation Package-Creating Custom Forms-Changing the Form Appearance using CSS.

PRACTICAL EXERCISES

1. Design PHP based web pages using correct PHP, CSS, and XHTML syntax, structure.
2. Create Web forms and pages that properly use HTTP GET and POST protocol as appropriate.
3. Design SQL language within MySQL and PHP to access and manipulate databases.
4. Install and configure both PHP and MySQL.
5. Create PHP code that utilizes the commonly used API library functions built in to PHP.
6. Design and create a complete web site that demonstrates good PHP/MySQL client/server design.

7. To store a cookie using PHP on client side.
8. To save the user session on server side.
9. Design website using Joomla.

RECOMMENDED BOOKS

1. Sams Teach Yourself PHP, MySQL, and Apache All in One" by Julie C.
2. Meloni, Publisher: SAMS ,ISBN 0-672-32976-X.
3. Web enabled development application by Ivan Byross: Commercial; TMH.
4. HTML, CSS, JavaScript, Perl, Python and PHP by Schafer Textbooks; Wiley India.
5. E-books/e-tools/relevant software to be used as recommended by AICTE/HSBTE/NITTTR.

RECOMMENDED WEBSITES

1. <http://swayam.gov.in>

INSTRUCTIONAL STRATEGY

This is hands on practice based subject and topics taught in the class should be practiced in the Lab regularly for development of required skills among the students. This subject contains five units of equal weightage.