WEB TECHNOLOGIES

III B. Tech. - I Semester   **L   T   P   C**
Course Code: A3CS20   **3   1   -   3**

COURSE OVERVIEW:
The World Wide Web continues to provide a foundation for the development of a broad range of increasingly influential and strategic technologies, supporting a large variety of applications and services, both in the private and public sectors. There is a growing need for management and decision makers to gain a clearer understanding of the application development process, from planning through to deployment and maintenance.

COURSE OBJECTIVES:
1. To teach students the basics of server side scripting using PHP
2. To explain web application development procedures
3. To impart servlet technology for writing business logic
4. To facilitate students to connect to databases using JDBC
5. To familiarize various concepts of application development using JSP

COURSE OUTCOMES:
Upon completion of this course, students will be able to:
1. Create web pages using PHP
2. Identify the difference between the HTML PHP and XML documents.
3. Identify the engineering structural design of XML and parse tree
4. Analyze the difference between and PHP and XML.
5. Understand the concept of JAVA SCRIPTS.
6. Identify the difference between the JSP and Servlet.
7. Design web application using MVC architecture
8. Understand the JSP and Servlet concepts.
9. Apply JDBC and ODBC technologies to create database connectivity

SYLLABUS

UNIT – I
Introduction to PHP: Declaring variables, data types, arrays, strings, operations, expressions, control structures, functions, Reading data from web form controls like Text Boxes, radio buttons, lists etc., Handling File Uploads, Connecting to database (My SQL as reference), executing simple queries, handling results, Handling sessions and cookies.
File Handling in PHP: File operations like opening, closing, reading, writing, appending, deleting etc. on text and binary files, listing directories.

UNIT – II
Client side Scripting: Introduction to JavaScript: JavaScript language – declaring variables, scope of variables functions, event handlers (on click, on submit etc.), Document Object Model, Form validations. Simple AJAX applications.

UNIT – III
XML: Introduction to XML, Defining XML tags, their attributes and values, Document type definition, XML Schemas, Document Object model, XHTML
Parsing XML Data - DOM and SAX parsers in java

UNIT – IV
Introduction to Servlets: Common Gateway Interface (CGI), Lifecycle of a Servlets, deploying a Servlets, The Servlets API, Reading Servlets parameters, Reading initialization parameters, Handling Http Request & Responses, Using Cookies and sessions, connecting to a database using JDBC.

UNIT – V
Introduction to JSP: The Anatomy of a JSP Page, JSP Processing, Declarations, Directives, Expressions, Code Snippets, implicit objects, Using Beans in JSP Pages, Using Cookies and session tracking, connecting to database in JSP.

TEXT BOOKS:
1. Web Technologies, Uttam K Roy, Oxford University Press
2. The Complete Reference PHP – Steven Holzner, Tata McGraw-Hill

REFERENCE BOOKS:
1. Web Programming, building internet applications, Chris Bates 2nd edition, Wiley Dremtech
2. Java Server Pages – Hans Bergsten, SPD O'Reilly
3. Java Script, D.Flanagan, O'Reilly, SPD.
4. Beginning Web Programming-Jon Duckett WROX.
5. Programming world wide web, R.W. Sebesta. Fourth Edition, Pearson.
6. Internet and World Wide Web – How to program, Dietel and Nieto, Pearson.