WEB PROGRAMMING
(Common to CSE & IT)

Course Code: 15CT1118

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Pre-requisites:

Object Oriented Programming through JAVA

Course Outcomes :

At the end of the Course, the Student will be able to:

CO 1 Describe and explain the relationship among HTML, XHTML, CSS, JavaScript, XML and other web technologies.

CO 2 Create and publish advanced HTML pages with the help of frames, scripting languages, and CSS.

CO 3 Understand and use JavaScript variables, control structures, functions, arrays, and objects. Understand and develop XML Technologies such as XML Schemas, XSLT.

CO 4 Understand and develop Server-Side Programming using Servlets and JSP's.

CO 5 Develop web pages using AJAX and PHP.

UNIT-I   (10 Lectures)

INTRODUCTION TO HTML5:

New HTML5 Form input Types, Introduction to Cascading Style Sheets: Part 1: Inline Styles, Embedded Style Sheets, Conflicting Styles, and Linking External Style Sheets (Text Book: 1)

JAVA SCRIPT:

Introduction to scripting, Control Structures-I, Control Structures-II, Functions, Arrays, Objects. (Text Book: 1).

UNIT-II (10 Lectures)

XML:

Introduction, XML Basics, Structuring Data, XML Namespaces, Document Type Definitions (DTDs), W3C XML Schema Documents, XML Vocabularies, Extensible Style sheet Language and XSL Transformations, Document Object Model (DOM): Objects and Collections (Text Book : 1).

UNIT-III (10 Lectures)

JDBC AND SERVLETS: DATABASE ACCESS:

Overview of JDBC, JDBC Drivers, Connecting to a Database, theStatement Interfaces, Result Sets, Using Metadata (Text Book: 3)

SERVLETS:

The Life Cycle of a Servlet, Using Tomcat for Servlet Development, A Simple Servlet, The Servlet API, The javax.servlet Package , Reading Servlet Parameters, The javax.servlet.http Package, Handling HTTP Requests and Responses, Cookies, Session Tracking.
(Text Book : 2).

UNIT-IV (10 Lectures)

JSP:

JSP Overview, How JSP Works , A Basic Example, JSP Syntax and Semantics: The JSP Development Model, Components of a JSP Page: Directives, Comments, Expressions, Scriptlets, Declarations, implicit objects, Standard Actions, Tag Extensions, A Complete Example (Text Book: 3).

Expressions, Scriptlets, Expression and Scriptlet Handling by the JSP Container, Implicit Objects and the JSP Environment, Initialization Parameters, Request Dispatching: Anatomy of Request Processing, include Directive, The <jsp:include> Action, Forwarding Requests, RequestDispatcherObject (Text Book:3).

UNIT-V (10 Lectures)

PHP:

Introduction, Simple PHP Program, Converting Between Data Types, Arithmetic Operators, Initializing and Manipulating Arrays, String

Comparisons, String Processing with Regular Expressions, Form Processing and Business Logic, Reading from a Database
(Text Book: 1)

AJAX: Traditional Web Applications vs. Ajax Applications, Rich Internet Applications (RIAs) with Ajax, History of Ajax, Ajax Example Using the XML, HttpRequest Object, Using XML and the DOM.
(Reference Book: 6)

TEXT BOOKS:

1. Dietel and Dietel : "Internet and World Wide Web – How to Program", 5th Edition, PHI/Pearson Education, 2011

2. Herbert Schildt, "The complete Reference Java 2", 9th Edition, TMH, 2014.

3. Phil Hanna: "The Complete Reference JSP", 2nd Edition, TMH, 2008.

REFERENCES:

1. Hans Bergsten : "Java Server Pages", 3rd Edition, O'Reillypublication, 2008.

2. Raj Kamal, "Internet & Web technologies", 8th Edition, Tata McGraw-Hill, 2007.

3. Chris Bates, "Web Programming, building internet applications", 2nd Edition, WILEY, Dreamtech, 2008.

4. Xavier. C, "Web technology and design", 1st Edition, New Age International, 2011.

5. Marty Hall and Larry Brown, "Core servlets and java Server pages volume 1: core technologies", 2nd Edition, Pearson Education, 2007.

6. Thomas A Powel, "The Complete Reference: AJAX", 1st Edition, Tata McGraw Hill, 2008.

WEB REFERENCES:

1. www.w3schools.com

2. www.tutorialspoint.com