Programming the Web

Course code17IS7IEPTW **Credits: 03**

L: P: T: S: 3:0:0: 0 **CIE Marks: 50**

Exam Hours: 03 **SEE Marks: 50**

Total Hours: 40

Course Objectives:

1. To gain ample understanding on designing static web pages.
2. To understand the need and different techniques for programming the web.
3. To understand concept of java scripting, Perl and CGI.
4. Use scripting languages, to create dynamic web pages with event handling.

Course Outcomes: At the end of the course, student will be able to:

CO1	To gain an insight of the internet and related internet concepts that are vital in understanding web development
CO2	Discuss the insights of internet programming and implement complete application over the web.
CO3	Demonstrate the important HTML tags for designing static pages and separate design from content using Cascading Style sheet.
CO4	Utilize the concepts of JavaScript and Java
CO5	Understand the implementation of web application development using dynamic programming languages such as Perl.
CO6	Use scripting languages to create dynamic web pages with event handling

Unit.	Content of the Unit	Hours	COs
1.	**Fundamentals of Web, XHTML – 1**: Internet, WWW, Web Browsers and Web Servers, URLs, MIME, HTTP, Security. XHTML: Basic syntax, Standard structure, Basic text markup, Images, Hypertext Links, Lists, Tables, Forms.	**08**	**CO1 & CO2**
2.	**CSS**: Introduction, Levels of style sheets, Style specification formats, Selector forms, Property value forms, Font properties, List properties, Color, Alignment of text, The box model, Background images, Conflict resolution. **JavaScript**: Overview of JavaScript, Object orientation and JavaScript, Syntactic characteristics, Primitives, operations, and expressions.	**08**	**CO1 & CO2**
3.	**JavaScript:** (continued) Screen output and keyboard input, Control statements, Object creation and modification, Arrays, Functions, Constructors, Pattern matching using regular expressions, Errors in scripts. **JavaScript and**	**08**	**CO2, CO3& CO4**

	HTML Documents, Dynamic Documents with JavaScript: The JavaScript execution environment, The Document Object Model, Element access in JavaScript, Events and event handling,		
4.	**Dynamic Documents with JavaScript:** (continued) Handling events from the Body elements, Button elements, Text box and Password elements. Introduction to dynamic documents, Positioning elements, Element visibility. **XML:** Introduction, Syntax, Document structure, Displaying raw XML documents, Displaying XML documents with CSS.	**08**	**CO2 & CO5**
5.	**Perl:** Origins and uses of Perl, Scalars and their operations, Assignment statements and simple input and output, Control statements, Fundamentals of arrays, Hashes, The Common Gateway Interface; CGI linkage; Query string format;	**08**	**CO2 & CO5**

Self-study component:

Note: NO questions from illustrative examples and from Self Study Component.

Unit 1: Frames

Unit 2: The and tags,

Unit 3: Changing colors and fonts, Dynamic content, Stacking elements, Locating the mouse Cursor, reacting to a mouse click, Slow movement of elements.

Unit 4: XSLT style sheets, XML processors.

Unit 5: CGI.pm module, rails application layout.

TEXT BOOK:

1. Robert W. Sebesta: Programming the World Wide Web, 4th Edition, Pearson Education, 2008. (Listed topics only from Chapters 1 to 9, 11 to 15)

REFERENCE BOOKS:

1. M. Deitel, P.J. Deitel, A. B. Goldberg: Internet & World Wide Web How to Program, 4th Edition, Pearson Education, 2004.
2. Chris Bates: Web Programming Building Internet Applications, 3rd Edition, Wiley India, 2007.
3. XueBai et al: The web Warrior Guide to Web Programming, Cengage Learning, 2003.