# WEB TECHNOLOGIES

**IV Semester: CSE / IT**

| Course Code | Category | Hours / Week | | | Credits | Maximum Marks | | |
|---|---|---|---|---|---|---|---|---|
| | | L | T | P | C | CIA | SEE | Total |
| ACS006 | Core | 3 | 1 | - | 4 | 30 | 70 | 100 |
| Contact Classes: 45 | Tutorial Classes: 15 | Practical Classes: Nil | | | | Total Classes: 60 | | |

**OBJECTIVES:**

**The course should enable the students to:**

I.   Design static and dynamic web pages using HTML, CSS and Java Script.
II.  Understand a well-formed XML schemes for developing web applications.
III. Design and implement web services from the server and client side.
IV   Understand how server-side programming works on the web using PHP
V    Apply tools to retrieve the information from the database using PHP.

**COURSE LEARNING OUTCOMES:**

Students, who complete the course, will have demonstrated the ability to do the following:

1.  Understand the basic HTML tags
2.  Understand and apply the design principles of HTML and Java Script to create static and dynamic web pages.
3.  Understand the difference between HTML and XML scripting languages.
4.  Identify the engineering structural design of XML and parse construction tree model.
5.  Analyze the client side validation procedure in web applications.
6.  Proficient in creating reusable web component using java bean.
7.  Identify the difference between the JSP and Servlet.
8.  Able to use web server and data base servers using specific vendor related software's.
9.  Create applications by using the concepts like JSP and Servlet.
10. Identify and perform requesting and response generation process in web servers.
11. Understand the PHP downloading, installation and configuring PHP process.
12. Understand branching statements, loop statements and use them in problem solving.
13. Identify the methods to read data from web pages using PHP.
14. Understand how MYSQL server is connected with PHP
15. Able to perform crude operations in data base servers, operations in PHP.
16. Understand the file handling methods using PHP
17. Familiar with basic HTML, XML, JSP and PHP techniques: Creation of web pages, that Includes verification and validation of web pages.
18. Possess the knowledge and skills for employability and to succeed in national and international level competitive examinations

| UNIT-I | INRODUCTION TO HTML AND JAVA SCRIPT | Hours: 10 |
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Introduction to html: fundamentals of HTML elements,Document body, text, hyperlink, lists, tables, color and images, frames; Cascading Style Sheets: Introduction, defining your own styles, properties and values in styles, style sheets, formatting blocks, and layers.
JavaScript: JavaScript basics, variables, string manipulation, mathematical functions, statements, operators, arrays and functions

| UNIT-II | OBJECTS IN JAVASCRIPT AND XML | Hours: 10 |
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Objects in JavaScript: Data and objects in JavaScript, regular expressions, exception handling, built-in objects, events; Dynamic HTML with JavaScript: Data validation, opening a new window, Rollover buttons, moving images, multiple pages in a single download, floating logos.
XML: Basics XML, document type definition, xml schemas, Document Object Model, presenting XML

| UNIT-III | SERVLETS AND JSP | Hours:08 |
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Servlet: Lifecycle of a Servlet, a simple Servlet, the Servlet API, the Javax. Servlet package, reading Servlet parameters, the javax.Servlet.HTTP package, Handling HTTP requests and responses, using cookies and sessions.
JSP: The anatomy of a JSP page, JSP processing, declarations, directives, expressions, code snippets, implicit objects, using beans in JSP pages, connecting to database in JSP.

| UNIT-IV | INTRODUCTION TO PHP | Hours: 09 |
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Basics of PHP: downloading, installing, configuring PHP, programming in a web environment and the anatomy of a PHP page; Overview of PHP data types and concepts: Variables and data types, operators, expressions and statements, strings, arrays and functions.

| UNIT-V | PHP AND DATABASE ACCESS | Hours: 08 |
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PHP and database access: Basic database concepts, connecting to a My SQL database, retrieving and displaying results, modifying, updating and deleting data; MVC architecture: PHP and AJAX other web technologies: PHP and XML.

## Text Books:

1. Chris Bates, "Web Programming: Building Internet Applications", Wiley Dream Tech, 2ndEdition,2002
2. Jeffrey C K Jackson, Web Technologies", Pearson Education, 1st Edition,2006
3. Steven Holzner,"The Complete reference PHP",TataMcGraw-Hill,1st Edition,2007

## Reference Books:

1. W Hans Bergsten, "Java Server Pages", O"Reilly, 3rdEdition, 2003.
2. D. Flanagan, "Java Script", O"Reilly, 6th Edition, 2011.
3. Jon Duckett, "Beginning Web Programming", WROX, 2ndEdition, 2008.
4. Herbert Schildt, "Java the Complete Reference", Hill - Osborne, 8thEdition, 2011