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| --- | --- | --- | --- | --- | --- |
| **Subject Title** | **:** | **Web Programming** | | | |
| **Subject code** | **:** | **22UIS503C** | | | |
| **Semester** | **:** | **5** | | | |
| **Credits with LTP Structure** | **:** | **3 Credits ( 2L-0T-2P)** | | | |
| **Lecture Hours per Week** | **:** | **2 Hours** | | | |
| **Tutorial Hours per Week** | **:** | **0 Hours** | | | |
| **Total Contact Hours/Week** | **:** | **02 Teaching Hours + 02 Practical Hours = 04 Hours** | | | |
| **Course Objectives:**   1. Understand the principles of World Wide Web and also to create an effective web page. 2. Use CSS to implement a variety of presentation effects in XHTML documents. 3. Develop basic programming skills using JavaScript 4. Implement interactive and dynamic web pages using XHTML, CSS and JavaScript 5. Understand how server-side programming works on the web using PHP technology. and design responsive web pages using PHP | | | | | |
| **Course Outcomes:**  **After completing the course the student will be able to:**   * + - 1. Develop web pages using technologies like XHTML and CSS.       2. Develop JavaScript scripts for event handling.       3. Build dynamic documents using JavaScript and XHTML.       4. Implement web pages using PHP and MySQL. | | | | | |
| **CO PO Mapping:**   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Course Outcomes** | **Programme Outcomes (POs)** | | | | | | | | | | | | **Program Specific**  **Outcomes (PSOs)** | | | | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **1** | **2** | **3** | | **CO1** | 3 | 2 | 3 |  | 1 |  |  |  |  |  |  | 1 | 1 | 2 | 1 | | **CO2** | 3 | 2 | 3 |  | 1 |  |  |  |  |  |  | 1 | 1 | 2 | 1 | | **CO3** | 3 | 2 | 3 |  | 1 |  |  |  |  |  |  | 1 | 1 | 2 | 1 | | **CO4** | 3 | 2 | 3 |  | 1 |  |  |  |  |  |  | 1 | 1 | 2 | 1 |   1**:** Low correlation 2: Moderate correlation 3: High correlation | | | | | |
| **UNIT - I** | | | **07 Hours** | **Teaching Hours** | **Tutorial Hours** |
| **FUNDAMENTALS OF WEB, XHTML -** Internet, HTTP request and HTTP response phase, MIME, The Web Programmers Toolbox.  **XHTML:** Basic syntax; Standard XHTML document structure; Basic text markup. XHTML : Hypertext Links; Lists; Tables; Forms; Syntactic differences between HTML and XHTML. CSS: Introduction; Levels of style sheets; Style specification formats; Selector forms; Property value forms; CSS: Font properties; List properties; Color; Alignment of text; Background images; The <span> and <div> tags | | | | **07** | **00** |
| **UNIT - II** | | | **07 Hours** | **Teaching Hours** | **Tutorial Hours** |
| **Basics of JavaScript:** General syntactic characteristics; Primitives, Screen output and keyboard input; Control statements; Arrays; Functions.  **JavaScript & XHTML Documents:** The Document Object Model, Element Access in JavaScript, Events & Event Handling, Basic Concepts of Event handling, Events, Attributes & Tags, Handling Events from Body Elements, Handling Events from Button Elements, Handling Events from Textbox & password Elements, The Focus Event | | | | **07** | **00** |
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| **UNIT - III** | | | **06 Hours** | **Teaching Hours** | **Tutorial Hours** |
| **Dynamic Documents with JavaScript:** Introduction, Positioning Elements, Absolute Positioning, Relative Positioning, Static Positioning, Moving Elements, Element Visibility, Changing Colors & Fonts, Changing Colors, Changing Fonts, Dynamic Contents, Stacking Elements, Locating the Mouse Cursor, Reacting to the Mouse Click, Slow Movement of Elements, Dragging & Dropping Elements. | | | | **06** | **00** |
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| **UNIT - IV** | | | **06 Hours** | **Teaching Hours** | **Tutorial Hours** |
| **Introduction to PHP:** Origins and Uses of PHP, Overview of PHP, General Syntactic Characteristics, Primitives, Operations and Expressions, Output, Control statements, Arrays, Functions, Form Handling, Cookies, Database access with PHP and MySQL | | | | **06** | **00** |
| **Text Books:** | | | | | |
| * + - 1. Programming the World Wide Web - Robert W. Sebesta, 4th Edition, Pearson Education, 2008. | | | | | |
| **Reference Books:** | | | | | |
| 1. Internet & World Wide Web How to program - M. Deitel, P.J.Deitel, A. B. Goldberg, 3rd Edition, Pearson Education / PHI, 2004. 2. Web Programming Building Internet Applications - Chris Bates,3rd Edition, Wiley India, 2006. 3. The Web Warrior Guide to Web Programming - Xue Bai et al,Thomson, 2003. 4. M.Srinivasan: Web Technology Theory and Practice, Pearson Education, 2012. 5. Jeffrey.C.Jackson: Web Technologies-A Computer Science Perspective, Pearson Education, Eleventh Impression, 2012 | | | | | |

**Laboratory Assignments**

1. Develop and demonstrate a XHTML document that illustrate the use of ,ordered list, unordered nested list, table, borders, padding, color and the <span> tag.
2. Design an XHTML web page using CSS, which has two paragraphs as follows:
3. First para – Arial font, 24 pt size, italic, bold, text color blue, background color yellow, underlined, aligned right
4. Second para – Courier font, 40pt size, small capital letters, overlined, background color white, text color red, aligned center.
5. Develop JavaScript scripts for the following:

i.to model a simple calculator using ‘switch’ statement

ii.to print the number of prime numbers in a given range L to R using functions

iii.to find whether the given number is an Armstrong number using functions

iv. to find the number of occurrences of a character in a string using functions.

1. Develop XHTML document with Java Script to handle events as follows:
2. ‘Blur’ event to transform the input text to upper case.
3. ‘focus’ event to change the background color of a text box.
4. ‘Change’ event to display the preferred browser in an alert box when the user relocates the browser from a drop-down menu.
5. ‘click’ event to copy the contents of one text in to another.
6. Create and demonstrate an XHTML document using Java Script for event handling as follows:

XHTML document should contain a set of radio buttons showing names of 3rd semester subjects. On clicking a particular button, event handler should be called to display a brief description about the related subject using an alert box.

1. Develop and demonstrate an XHTML document as follows:

The XHTML document must contain four paragraphs stacked on the top of each other with only enough of each showing so that the mouse cursor when placed over the exposed part of any paragraph, it should rise to the top to become completely visible.

1. Write XHTML code to create a table as follows and enter the quantity required.

|  |  |  |
| --- | --- | --- |
| Product Name | Price/item (Rs) | Quantity |
| A | 20 |  |
| B | 30 |  |
| C | 40 |  |

Create a set of radio buttons to accept the payment method needed-cheque, cash or card. Develop a PHP script to display the results in a table, which should contain product name, price, quantity and total cost for each product. Below the table, display the total number of ordered items, the total cost and the payment method used.

1. Create an XHTML document to accept student data which contains student name, branch and college name. Write a PHP document to insert data into the MySQL database and retrieve the particular database on student name from the database and display.