# 19CS4103 - WEB TECHNOLOGIES

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Category:** | Professional Core | **Credits:** | 3 |
| **Course Type:** | Theory | **Lecture – Tutorial – Practical:** | 3-0-0 |
| **Prerequisite:** | Need to have the knowledge of any one programming language. | **Sessional Evaluation:**  **Univ.Exam Evaluation:**  **Total Marks:** | 40  60  100 |
| **Course Objectives** | * To introduce PHP language for server-side scripting. * To introduce XML and processing of XML Data with Java. * To introduce Server-side programming with Java Servlets and JSP. * To introduce Client-side scripting with Javascript and AJAX. | | |

|  |  |  |
| --- | --- | --- |
| **Course Outcomes** | Upon successful completion of the course, the students will be able to: | |
| CO1 | gain knowledge of client-side scripting, validation of forms with PHP programming |
| CO2 | Understand server-side scripting with PHP language |
| CO3 | Understand what XML is and how to parse and use XML Data with Java. |
| CO4 | gain knowledge of client-side scripting, validation of forms with JS |
| CO5 | To introduce Server-side programming with Java Servlets. |
| CO6 | To introduce Server-side programming with JSP. |
| **Course Content** | UNIT-I  **Introduction to PHP:** Declaring variables, data types, arrays, strings, operators, expressions, control structures, functions, Reading data from web form controls like text boxes, radio buttons, and lists etc., Handling File Uploads. Connecting to database (MySQL as reference), executing simple queries, handling results, Handling sessions and cookies  UNIT-II  **File Handling in PHP:** File operations like opening, closing, reading, writing, appending, deleting etc. on text and binary files, listing directories.  UNIT-III  HTML Common tags: List, Tables, images, forms, Frames; Cascading Style sheets; XML: Introduction to XML, Defining XML tags, their attributes and values, Document Type Definition, XML Schemes, Document Object Model, XHTML Parsing XML Data – DOM and SAX Parsers in java.  UNIT-IV  **Client-side Scripting:** Introduction to Javascript, Javascript language – declaring variables, scope of variables, functions. event handlers (onclick, onsubmit etc.), Document Object Model, Form validation.  UNIT-V  **Introduction to Servlets:** Common Gateway Interface (CGI), Life cycle of a Servlet, deploying a servlet, The Servlet API, Reading Servlet parameters, Reading Initialization parameters, Handling Http Request & Responses, Using Cookies and Sessions, connecting to a database using JDBC.  UNIT-VI  **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 for session tracking, connecting to database in JSP. | |
| **Text Books and References:** | **TEXT BOOKS:**  1. Web Technologies, Uttam K Roy, Oxford University Press  2. The Complete Reference PHP — Steven Holzner, Tata McGraw-Hill  **REFERENCES:**  1. Web Programming, building internet applications, Chris Bates 2″ edition, Wiley Dreamtech  2. Java Server Pages —Hans Bergsten, SPD O’Reilly,  3. Java Script, D.Flanagan  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. | |
| **E-Resources** | 1. [**https://nptel.ac.in/courses**](about:blank) 2. [**https://freevideolectures.com/university/iitm**](about:blank) | |