With effect from the Academic year 2017-2018

PC 603 CS

Web Programming

Credits:3

Instruction : (3L + 1T) hrs per week

Duration of SEE : 3 hours

CIE : 30 Marks

SEE : 70 Marks

Course Objectives:

- To learn HTML5 and JavaScript
- To familiarize the tools and technologies to process XML documents
- To learn various server-side and database connectivity technologies

Course Outcomes

Student will be able to

- Design a website with static and dynamic web pages
- Develop a web application with session tracking and client side data validations
- Develop web content publishing application that accesses back-end data base and publishes data in XML format

UNIT-I

Introduction to World Wide Web, Web Browsers, Web Servers, Uniform Resource Locators, HTTP. HTML5: Introduction, Links, Images, Multimedia, Lists, Tables, Creating Forms, Styling Forms.

UNIT-II

Introduction to XML, XML document structure, Document Type Definition, Namespaces, XML Schemas, Displaying raw XML documents, Displaying XML documents with CSS, XPath Basics, XSLT, XML Processors.

UNIT-III

Introduction to Java script, Java Script and Forms Variables, Functions, Operators, Conditional Statements and Loops, Arrays DOM, Strings, Event and Event Handling, Java Script Closures. Introduction to Ajax, Pre-Ajax Java Script Communication Techniques, XML HTTP Request Object, Data Formats, Security Concerns, User Interface Design for Ajax. Introduction to Python, Objects and Methods, Flow of Control, Dynamic Web Pages.

UNIT-IV

Java Servlets: Java Servlets and CGI Programming, Benefits of Java Servlet, Life Cycle of Java Servlet, Reading data from client, HTTP Request Header, HTTP Response Header, working with Cookies, Tracking Sessions. Java Server Pages: Introduction to JSP, JSP Tags, Variables and Objects, Methods, Control Statements, Loops, Request String, User Sessions, Session Object, Cookies.

UNIT-V

Introduction to PHP: Overview of PHP, General Syntactic Characteristics, Primitives, Operations, Expressions, Control Statements, Arrays, Functions, Pattern matching, Form handling, Files, Cookies, Session Tracking. Database access through Web: Architectures for Database Access- Database access with Perl - Database access with PHP-Database access with JDBC.

Suggested Reading:

1. Robert W.Sebesta, Programming the World Wide Web, 3rd Edition, Pearson Education, 2006
2. Wendy Willard, HTML5, McGraw Hill Education (India) Edition, 2013
3. Thomas Powell, The Complete Reference: Ajax, Tata-McGraw-Hill, 2011
4. John Pollock, Java Script, 4th Edition, McGraw Hill Education (India) Edition, 2013
5. Jim Keogh, J2EE : The Complete Reference, Tata-McGraw-Hill, 2002