

## III/IV B.TECH. SECOND SEMESTER

## WEB TECHNOLOGIES (FREE ELECTIVE)

**Course Code : CS6T5FE2****Lecture: 3 periods/ week****Tutorial: 1period/week****Credits: 3****Internal assessment: 30 Marks****Semester end examination: 70 Marks**

---

**Course Objectives:**

This course is intended to develop web application using various technologies like HTML,.CSS,JavaScript and JSP.

**Course Outcomes:**

The students will be able to

CO1) Understand web page creation.

CO2)Develop advanced HTML pages with the help of tags and scripting language.

CO3)Develop user defined tags to exchange the data.

CO4)Understand the object to object communication using JAVA Beans

CO5)Get acquaintance on capabilities of servlet architecture, cookies and session management.

CO6)Understand dynamic content by using JSP architecture and application model.

CO7)Build robust web applications using JSP with JDBC.

**Syllabus:****UNIT 1**

**Introduction to Web Technologies:** History of the web, Understanding Web System Architecture, Understanding 3-tier Web Architecture, Overview of HTTP, Web Browsers.

**HTML:** Introducing HTML document structure, Creating Headings on a web page, Working with links, Creating a Paragraph.

**UNIT 2**

**HTML:** Working with images, Working with tables, Working with frames, Introduction to Forms and HTML controls, Introducing Cascading Style sheets..

**UNIT 3**

**Introducing JavaScript:** Client Side benefits of using JavaScript, Embedding JavaScript in an HTML page, Using Variables, Using Operators, Working with Control Flow statements, Working with functions, Using Arrays, Creating objects in JavaScript.

**UNIT 4**

**Getting started with Web applications in Java:** Introduction to web applications, Exploring Java Based Web Technologies, Introducing Web Architecture models, Introducing MVC architecture. Servlet Life cycle, Creating sample servlet program.

**UNIT 5**

**Working with JSP:** Understanding the JSP, Describing the JSP Life Cycle, Creating simple JSP pages, Working with JSP basic tags and Implicit objects.

**Working with JDBC:** Introduction to JDBC, Exploring JDBC drivers, Describing JDBC APIs, Creating s Simple JDBC application.

**Learning Resource****Text Books**

1. Web Technologies, Black Book, Kogent Learning Solutions Inc, Dreamtech Press.
2. JDBC, Servlets, and JSP, New Edition, Santhosh Kumar K , Kogent Learning Solutions Inc, Dreamtech Press

**References**

1. Web Technologies, Uttam K. Roy, Volume 2 , Oxford University
2. Core SERVLETS ANDJAVASERVER PAGES VOLUME 1: CORE TECHNOLOGIES, Marty Hall and Larry Brown Pearson
3. Internet and World Wide Web - How to program, Dietel and Nieto.
4. An Introduction to web Design and Programming -Wang-Thomson.