

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA****III Year B.Tech. Computer Science Engineering. II-Sem.****ADVANCED JAVA AND WEB TECHNOLOGIES****UNIT-I:**

HTML tags, Lists, Tables, Images, forms, Frames. Cascading style sheets. Introduction to Java script. Objects in Java Script. Dynamic HTML with Java Script.

**UNIT-II:**

**PHP Programming: Introducing PHP:** Creating PHP script, Running PHP script. **Working with variables and constants:** Using variables, Using constants, Data types, Operators. **Controlling program flow:** Conditional statements, Control statements, Arrays, functions. Working with forms and Database.

**UNIT-III:**

**Working with XML:** Document type Definition, XML schemas, Document object model, XSLT, DOM and SAX.

**UNIT-IV:**

**Java Beans:** Introduction to Java Beans, Advantages of Java Beans, JDK Introspection, Using Bound properties, Bean Info Interface, Constrained properties Persistence, Customizes, Java Beans API, Introduction to EJB's

**UNIT-V:**

**Web Servers and Servlets:** Tomcat web server, **Introduction** to Servlets: Lifecycle of a Servlet, JSDK, The Servlet API, The javax.servelet Package, Reading Servlet parameters, Reading Initialization parameters. The javax.servelet HTTP package, Handling Http Request & Responses, Using Cookies-Session Tracking, Security Issues,

**UNIT-VI:**

**Introduction to JSP:** The Problem with Servlet. The Anatomy of a JSP Page, JSP Processing. JSP Application Design with MVC.

**JSP Application Development:** Generating Dynamic Content, Using Scripting Elements Implicit JSP Objects, Conditional Processing – Displaying Values Using an Expression to Set an Attribute, Declaring Variables and Methods Error Handling and Debugging Sharing Data Between JSP pages, Requests,

and Users Passing Control and Date between Pages – Sharing Session and Application Data – Memory Usage Considerations

### UNIT-VII:

**Database Access:** Database Programming using JDBC, Studying Javax.sql.\* package, Accessing a Database from a JSP Page, Application – Specific Database Actions, Deploying JAVA Beans in a JSP Page, Introduction to struts framework..

### UNIT-VIII:

**AJAX A New Approach:** Introduction to AJAX, Integrating PHP and AJAX, Consuming WEB services in AJAX: (SOAP, WSDL, UDDI)

### TEXT BOOKS:

1. Web Technologies – Black Book, Kogent Learning solutions Inc sol. Dreamtech press. (Units- 1,2,3,8)
2. The complete Reference Java 2, 7<sup>th</sup> Edition by Patrick Naughton and Herbert Schildt. TMH (Units- 4,5,6,7)
3. An Introduction to Web Design + Programming, Wang, Katila, CENGAGE

### REFERENCE BOOKS:

1. Web Technologies, Uttam K Roy - Oxford
2. Head first Java – Kathy seirra - Orielly –
3. Core SERVLETS AND JAVASERVER PAGES VOLUME 1: CORE TECHNOLOGIES By Marty Hall and Larry Brown Pearson
4. Internet and World Wide Web – How to program by Dietel and Nieto PHI/Pearson Education Asia.
5. Murach's beginning JAVA JDK 5, Murach, SPD
6. An Introduction to web Design and Programming – Wang-Thomson
7. Beginning Web Programming-Jon Duckett WROX.
8. Programming the World Wide Web – Robert W Sebesta. Pearson publications. Fourth edition.
9. Web Technologies. TCP/IP Architecture and Java programming- Godbole, Atul Kahate- 2<sup>nd</sup> ed, TMH
10. Web Technologies, A developer's Perspective, N P Gopalan, Akhilandeswari, PHI