

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY , HYDERABAD**

II Year MCA

IV Semester

**ADVANCED JAVA PROGRAMMING**

**UNIT-I:**

HTML Common tags- List, Tables, images, forms, Frames; Cascading Style sheets; Introduction to Java Scripts, Objects in Java Script, Dynamic HTML with Java Script

**UNIT -II:**

XML: Document type definition, XML Schemas, Document Object model, Presenting XML, Using XML Processors: DOM and SAX

**UNIT- III:**

Review of Applets, Class, Event Handling, AWT Programming

Introduction to Swing:

JApplet, Handling Swing Controls like Icons – Labels – Buttons – Text Boxes – Combo – Boxes – Tabbed Pains – Scroll Pains – Trees – Tables Differences between AWT Controls & Swing Controls Developing a Home page using Applet & Swing

**UNIT - IV:**

Java Beans Introduction to Java Beans, Advantages of Java Beans, JDK Introspection, Using Bound properties, Bean Info Interface, Constrained properties Persistence, Customizers, Java Beans API

**UNIT - V:**

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 Setting Up and JSP Environment: Installing the Java Software Development Kit, Tomcat Server & Testing Tomcat

**UNIT - VII:**

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 - VIII:**

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.

**TEXT BOOKS:**

Internet and World Wide Web – How to program by Dietel and Nieto Pearson  
Education Asia. (Chapters: 3, 4, 8, 9, 10, 11, 12 – 18)  
The complete Reference Java 2 Third Edition by Patrick Naughton and Herbert  
Schildt. (Chapters: 19, 20, 21, 22, 25, 27)  
Java Server Pages by Hans Bergstan. (Chapters: 1 – 9)

**REFERENCE BOOKS:**

1. Internet and World Wide Web – How to program by Dietel and Nieto PHI/Pearson  
Education Asia.
2. Jakarta Struts Cookbook , Bill Siggelkow, S P D O'Reilly for chap 8.
3. Murach's beginning JAVA JDK 5, Murach, SPD
4. An Introduction to web Design and Programming –Wang-Thomson
5. Web Applications Technologies Concepts-Knuckles,John Wiley
6. Programming world wide web-Sebesta,Pearson
7. Building Web Applications-NIIT,PHI
8. Web Warrior Guide to Web Programmimg-Bai/Ekedaw-Thomas
9. Beginning Web Programming-Jon Duckett WROX.
10. Java Server Pages, Pekowsky, Pearson.