

**Andhra Pradesh State Council of Higher Education**  
**M.Sc. Computer Science Syllabus**

**MCS 201- WEB TECHNOLOGIES**

**UNIT I**

**HTML: Common Tags:** List, Tables, images, forms, Frames, Cascading Style Sheets;

**Java Script:** 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

**CGI Scripting:** What is CGI? – Developing CGI applications – Processing CGI – Returning a Basic HTML page – Introduction to CGI.pm – CGI.pm methods – Creating HTML pages dynamically.

**UNIT III**

**JDBC:** Introduction to JDBC – Connections – Internal Database Connections – Statements – Results

Sets - Prepared Statements - Callable Statements.

**Network Programming and RMI:** why networked Java – Basic Network Concepts – looking up Internet Addresses – URLs and URIs – UDP Datagrams and Sockets – Remote Method Invocation.

**Unit –IV**

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

**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

**Prescribed Textbooks**

1. Web Programming, building internet applications, Chris Bates 2nd edition, WILEY Dreamtech (units I, II)
2. Java Programming with JDBC ;Donald Bales, O'Reilly (Unit III)
3. Java Network Programming, elliotte Rusty Harold, 3rd Edition, O'Reilly (Unit III)
4. Java Server Pages – Hans Bergsten, SPD O'Reilly (Unit IV)

**Reference Textbooks**

1. Robert W. Sebesta, "Programming the World Wide Web", Third Edition, Pearson Education (2007).
2. Anders Moller and Michael schwartzbach, "An Introduction to XML and Web Technologies", Addison Wesley (2006)
3. Jeffrey C. Jackson, "Web Technologies – A Computer Science Perspective", Pearson Education (2008).
4. H.M.Deitel, P.J.Deitel, "Java How to Program", Sixth Edition, Pearson Education (2007).