

MCA 503 INTERNET TECHNOLOGY AND ENTERPRISE JAVA

Module-I (10 hours)

Internet and Web Technology: Introduction and overview, Internetworking concept and architectural model, World wide web, Web 2.0, Web Browsers, Web Servers, URLs, URN, URI classful internet addresses, classless and subnet address extensions (CIDR)

Web Programming:- Basics of HTML & XHTML Programming: Syntax, Document structures, images, hyperlinks, List, Tables, Forms, Frames, CSS, Basic JavaScript Programming: DOM, Loops, function and arrays, Form design, Event handling. XML: Document structure, DTD, Namespaces, XML Schema, and Parsing XML documents.

Module-II (10 hours)

Enterprise Java Programming: Concept of Swing Package, Java EE 6 API, Web Applications, Java Servlet Technology: - Lifecycle of a Servlet, Servlet API, Servlet Packages, Types of servlets, Stateless and Stateful protocols, Session tracking in Servlet, Cookie, Session variable

Database Programming : Concept of JDBC, JDBC drivers, connecting to database, Database Access using Servlet.

Module-III (10 hours)

JSP Technology: - Architecture & Anatomy of JSP Page, JSP life cycle, JSP with MVC Architecture, Dynamic webpage Creation, Scripting Elements, Directive tags, Action tags, Session Tracking, Database access using JSP page, JSTL, concept of Ajax. Introduction to JavaServer Faces (JSF) Technology, Introduction to Facelets,

Module-IV (10 hours)

Enterprise JavaBeans Technology: EJB Component Architecture, Role of EJB & its life cycle, Types of Beans, Stateless and stateful beans, Simple program using stateless and stateful beans, Security features of EJB, Contexts and Dependency Injection for the Java EE Platform; Java Persistence API, Security in Java EE, Java EE Supporting Technologies: Introduction, Transactions and Resource Connections.

Module-V (6 hours)

(As per choice of faculty)

Portion covered can be tested through internal evaluation only not to be included in university examination.

Recommended Books:

1. Douglas E. **Comer**, *“Internetworking with TCP/IP, Volume 1: Principles, Protocols and Architecture”*, Fifth Edition, 2006, PHI Learning Pvt. Ltd., New Delhi.
Chapters: 1, 3, 4, 9, 10, 18, 20, 27, 28.
2. Ralph **Moseley**, *“Developing Web Applications”*, 2008, Wiley India, New Delhi.
3. Eric **Jendrock**, D. Carson, I. Evans, D. Gollapudi, K. Haase, C. Srivastha, *“The Java EE6 Tutorial”*, Volume-1, Fourth Edition, 2010, Pearson India, New Delhi.
Chapters: 1, 3, 4, 5, 7, 9 to 12, 14 to 16, 17, 19, 23, 26, 27, 28.
4. H. M. Deitel, P. J. Deitel, S. E. Santry *“Advanced Java 2 Platform HOW TO PROGRAM”*, Prentice Hall, 2001

References:

1. Joe **Wigglesworth**, Paula **McMillan**, *“Java Programming: Advanced Topics”*, 3rd Edition, 2009, CENGAGE Learning India Pvt. Ltd., New Delhi.
2. William **Stallings**, *“Computer Networking with Internet Protocols and Technology”*, 2004, Pearson education, New Delhi.
3. **Kongent S.**, *“Java Server Programming (JEE 6) Black Book, Platinum Edition”*, 2008, Dreamtech / Wiley India Pvt. Ltd.
4. David **Geary**, Cay S. **Horstmann**, *“Core JavaServer Faces”*, Second Edition, 2007, Pearson Education, Inc. New Delhi.
5. Adrian **Farrel**, *“The Internet and its Proto*