MCA 301 Java and Web Programming

Module I

Introduction to object oriented programming-Features of Java – Data types, variables and arrays – Operators – Control statements – Classes and Methods – Inheritance.

Module II

Packages and Interfaces –Exception Handling – Multithreaded Programming – Input/Output – Files – Utility Classes – String Handling. Generics, Generic Class, Generic methods.

Module III

Java applets- Life cycle of an applet – Adding images to an applet – Adding sound to an applet. Passing parameters to an applet. Event Handling. Introducing AWT: Working with Windows Graphics and Text. Using AWT Controls, Layout Managers and Menus.

Module IV

JDBC Overview – JDBC implementation – Connection class – Statements - Catching Database Results, handling database Queries.. Networking– InetAddress class – URL class- TCP sockets   - UDP sockets.

Module V

Web page Designing using HTML, Scripting basics-Client side and server side scripting. Java Script-Object, names, literals, operators and expressions- statements and features- events- windows- documents- frames- data types- built-in functions- Browser object model- Verifying forms. Servlet – life cycle of a servlet. The Servlet API, Handling HTTP Request and Response, using Cookies, Session Tracking. Introduction to JSP.

References

- Java The Complete Reference , Herbert Schildt 7th Edition. Tata McGraw-Hill Edition
- Java 6 by Rogers Cadenhead, Laura Lemay, Pearson education
- Java Programming – A Practical Approach – C Xavier, Tata McGraw-Hill Edition
- K. Arnold and J. Gosling, "The JAVA programming language", Third edition, Pearson Education, 2000
- Javascript A Beginners Guide, 3rd Edition – John Pollock - Tata McGraw-Hill Edition