

RO8013 INTERNET TOOLS AND JAVA PROGRAMMING

DETAILED SYLLABUS

OBJECTIVES:

The student should be made to:

- Learn about the various tools used in internet
- Learn Java Programming.
- Understand different Internet Technologies and the way to handle it.
- Be familiar with client – side programming and server – side programming.
- Learn to develop web applications.

UNIT I INTERNET TOOLS

Major Internet Services – Net Telephony – Internet Relay Chat – Newsgroups – File Transfer Protocol (FTP) – Remote Login – Telnet, Gopher, and Veronica Clients
OBJECT ORIENTATION IN JAVA: Introduction - Data Types - Operators - Declarations - Control Structures - Arrays and Strings – Input / Output.-Java Classes - Fundamentals - Methods - Constructors - Scope rules - this keyword - object based Vs oriented programming.- Inheritance-Reusability - Composing class.

UNIT II ABSTRACT FUNCTIONS AND PACKAGES

Abstract classes - Abstract Functions – Method Overloading and Method Overriding- Wrapper Classes. Packages - Access protection - Importing packages - Interface - Defining and Implementing Interface - Applying Interface - Variables in Interfaces.

UNIT III EXCEPTION HANDLING

Fundamentals - Exception types - Uncaught Exception - Using Try and Catch - Multiple catch clauses - Nested Try statements - Throw - Throws - Java Built-in Exception - Creating your own subclasses. MULTI THREADED PROGRAMMING: Java thread model - Priorities - Synchronization - Messaging - Thread class and runnable Interface - Main thread - Creating the Thread - Synchronization - Interthread Communication - Deadlock.

UNIT IV I/O, APPLETS

I/O basics - Stream - Stream Classes - Predefined stream - Reading/Writing console input - Applet fundamentals - Native methods - GUI Components - Applets - Java Scripts – AWT / Swings.

UNIT V INTRODUCTION TO NETWORK PROGRAMMING

Fundamentals - Internet Addresses - Internet Protocols - DNS - Internet Services - Socket programming, UDP, TCP. JAVA DATABASE PROGRAMMING: JDBC –Database Connection and Table Creation – Execution of Embedded SQL Statements – Result Set and Result Set Meta Data – Examples.

TEXT BOOKS:

1. Patrick Naughton and Herbert Schildt, "JAVA - The Complete Reference", Tata McGraw Hill, 1997.
2. Deitel and Deitel, "JAVA - How to Program", Prentice Hall International Inc, 2003.

REFERENCES:

1. William Stanek and Peter Norton, "Peter Norton's Guide to Java Programming", Tech Media Publications, 1997.
2. Mark Grand, "JAVA Language Reference", O'Reilly & Associates Inc., 1997.
3. Horstmann and Cornell, "Core Java", Pearson Education, 2001.
4. Kennath Litwak, "Pure Java 2: A Code-Intensive Premium Reference", Tech Media Publications, New Delhi, 2000
5. James K L, "The Internet: A Users Guide", Prentice Hall of India, New Delhi, 2003.