Programming in Java

Unit - 1 Introduction to JAVA
An overview of JAVA, Basic features of Java, JAVA Environment, Installing the Java SDK, Writing Java Programs.

Unit - 2 Programming Basic
Java Token & Keywords, Constants, Data types; Declaring a variable, The scope and lifetime of variable, Various Operators, Decision Making and Control Statements : if statement, If-else, else-if, switch statement; the for, while, do-while statements.

Unit - 3 OOP in Java
Class fundamentals : Defining class, Accessing class members, Declaring objects, Constructors, copy constructor; Passing Arguments to Methods, Modifiers, Inheritance : the super class, Multilevel Inheritance, Final and abstract keyword, Static Members.

Unit - 4 Arrays, Strings and Vectors
Declaring Arrays, Creating Arrays, Initializing Arrays, Multi-Dimensional Arrays, Strings: string arrays, string methods, StringBuffer class, Vectors.

Unit - 5 Interfaces and Packages
Interfaces: Defining an Interface, Implementing interfaces, Applying Interfaces, Packages: Defining a package, Accessing and Importing Packages.

Unit - 6 Exception Handling
Exception Handling fundamentals, Exception types, Using try and catch, builtin exceptions in Java, User-defined exception

Unit - 7 File Handling
I/O Basics: Streams, The Stream classes, The predefined streams, Reading console input, Writing console output, Reading and writing files

Unit – 8 Introduction to Applets
Applets and the World Wide Web, The Applet Class, Applets and HTML , The Life Cycle of an Applet, Using Window Components, Event Handling, Adding Audio and Animation

Unit – 9 AWT and Swings
AWT Basics, AWT Components, Event Handling, Application and Menus; Introduction to Swings, Swing Components, Event Handling, Display text and image in a window, Layout manager.

UNIT – 10 Introduction to JDBC
Basic steps to JDBC, API, JDBC Drivers, Connection Management, JDBC Design Considerations, Two Tier and Three Tier client server model, Resultset, Prepared statement and callable statement, Resultset MetaData Object