

COURSE CODE:

IGIT– 502-CR12

COURSE TITLE:

CORE JAVA PROGRAMMING

CREDITS

4+2 = 06

Unit I

An overview to Java, Comparison with other languages (C & C++), Java and Internet, Features of Java, Introduction to Java Virtual machine, Object Oriented Programming Concepts (Abstraction, Encapsulation, Inheritance, Polymorphism). Datatypes: Integers, Floating point, Character type, Boolean, Variables: Assignment, Initialization and Conversions. Operators: Arithmetic, Assignment, Modulus, Relational, Boolean, Bitwise. Precedence Summary, Unicode Character Set

Unit II

Arrays: Single and Multidimensional. Input, Output, Error Statements, Control Statements and Looping Structures., Typecasting, Classes & Objects: Class Fundamentals, declaring objects, exploring new operator, creating methods, Constructors, types of constructors, using this keyword, Finalizers, Access specifiers, static, the final modifier, Command Line Arguments & Argument passing.

Unit III

Inheritance: Basics of Inheritance, Super class, Member Access, creating a Multilevel Hierarchy, Method Overriding, Dynamic Method Dispatch & Abstract class.

Packages & Interfaces: Defining and importing packages, Understanding Class path, Defining and implementing interfaces

Unit IV

Multithreaded Programming: Java Thread Model, Creating & working with threads, Thread priorities, Introduction to Synchronization.

Exception Handling: Fundamentals of Exceptions, Exception types, Using Try and Catch, Throwing Exceptions, Built-in Exceptions in Java, User defined Exceptions. Applet-Concept and Implementation

Recommended Books

- 1) Programming with Java,EBalaguruswamy,Tata Mc Graw Hill
- 2) Java The Complete Reference, Herbert schidt,Tata Mc Graw Hill
- 3) Java How to program, Dietel and Dietel,Pearson Education