

Course Code	Course Title	H	C	I	E	T
17U4DMC10	PROGRAMMING IN JAVA	4	4	25	75	100

Objectives:

- To impart the knowledge of OOPs approach in computer programming.
- Learning the concept and controls of Java language.

Unit – I: Introduction

(12 hours)

Java history – Java Features – Simple Java Programs – Class declaration – Tokens – Comments – Statements – JVM – Implementing Java programs – Command line arguments – Constants, Variables and Data types – Operators and Expressions – Decision making statements – Simple if statements – If-else statements – Nesting if-else statements – else-if ladder – switch statement – ternary operator – Looping – While, do-while, for loop statements.

Unit – II: Class & objects

(12 hours)

Creation of class – Objects and methods – Accessing class members – Constructors – Method Overloading – Overriding – Static members – Inheritance – Interface.

Unit – III: Arrays

(12 hours)

Arrays – Types – Length – Strings – Strings Manipulations – Vector – Vector classes – Wrapper class – Enumerated types – Java API Packages – System package – Creating and accessing user defined and system package – Managing errors and exceptions.

Unit – IV: Input / Output

(12 hours)

Managing I/O files in Java – Stream I/O – Byte stream class – Character stream class – creation of files – File handling in Java – Multi threaded programming – Multithreads in Java – Thread class – Lifecycle of thread – Thread exceptions – Priority.

Unit – V: Applets & Graphics Programming

(12 hours)

Applet programming – Introduction – Preparing to write Applets – Building applet code – Applet life cycle – Creating an executable applet – Applet tag – Running the applet – Passing parameters – Displaying numerical values – Getting input from the user – Graphics programming – Introduction – the Graphics class – Lines and rectangles – Circles and ellipse – Drawing arcs – Drawing polygons.

Text Book:

E. Balagurusamy – “Programming with Java” – V Edition., - MGH.

Reference Books:

1. Deital & Deital – “Java How to Program” – Pearson education-2003.
2. Herbert Schildt - “Java A Beginner’s Guide” - IV Ed., TMH.
3. Patrick Naughton, Herbert Schildt – “Java Complete Reference2 – V Ed., - TMH.