

Devi Ahilya University, Indore, India Institute of Engineering & Technology				I Year M.E. (Computer Engineering Sp. in Software Engineering) (Full Time)			
Subject Code & Name	Instructions Hours per Week			Credits			
SER1C3	L	T	P	L	T	P	Total
Software Construction	3	1	2	3	1	1	5
Duration of Theory Paper: 3 Hours							

Objective: To gain the knowledge for advance programming using JAVA

UNIT I

Object Oriented Concepts, Merits of Object Oriented Technology. Introduction to JAVA and its applications on the Internet. Constructors & constructor overloading, Access modifiers: Class attributes and methods. Introduction to object model of software development.

UNIT II

Introduction to Java classes and objects, Java features, data types data type conversions & control statements Operators and their precedence. Introduction to Class, Instance members and member functions.

UNIT III

String Handling, Wrapper classes Arrays and Vectors Inheritance and Polymorphism

Class relationships Inheritance and its types Merits and Demerits of Inheritance Introduction to Association, inheritance Polymorphism Dynamic method dispatch Runtime polymorphism Abstract classes, Interfaces packages

UNIT IV

Java I/O, Basic concept I/O stream reader-writer Exceptions: Need for exceptions Checked exceptions Unchecked exceptions Creating exceptions Multithreading Introduction, Priorities and scheduling of Threads Thread Synchronization and its life cycle Applet and its Life Cycle

UNIT V

Server side programming:- Java servlets, Java Server pages, Web application development using Java, Database handling with Java.

Text Books:

T1: Herbert Schildt, Java: The Complete Reference, 8th Edition

T2: Programming with java by e balagurusamy