

SYLLABUS

OBJECT ORIENTED PROGRAMMING

Unit I: Introduction to Object Oriented Programming

Introduction, Need of OOP, Principles of Object-Oriented Languages, Procedural Language Vs OOP, Application of OOP, Java Virtual Machine, Java features, Program Structures.

Java Programming Constructs: Variables, Primitive data types, Identifier, Literals, Operators, Expressions, Precedence Rules and Associativity, Primitive Type Conversion and Casting, Flow of Control.

Unit II: Classes and Objects

Classes, Objects, Creating Objects, Methods, Constructors, Cleaning up Unused Objects, Class Variable and Methods, this keyword, Arrays, Command Line Arguments.

Unit III: Inheritance, Interfaces and Packages

Inheritance: Inheritance vs. Aggregation, Method Overriding, super keyword, final keyword, Abstract class. **Interfaces:** Defining interfaces, Implementing interfaces, Accessing interface variables, Extending interfaces. **Packages:** Packages, java.lang package, Enum type.

Unit IV: Exception Handling and Input /Output

Exception: Introduction, Exception handling Techniques, User-defined exception, Exception Encapsulation and Enrichment. **Input/Output:** The java.io.file Class, Reading and Writing data, Randomly Accessing a file, Reading and Writing Files using I/O Package.

Unit V: Applets

Introduction, Applet Class, Applet structure, Applet Life cycle, Common Methods used in displaying the output, paint (), update () and repaint (), More about applet tag, getDocument Base() and getCode Base () methods, Applet Context Interface, Audio clip, Graphic Class, Color, Font, Font Metrics.

Unit VI: Event Handling

Introduction, Event delegation Model, java.awt.event Description, Sources of events, Event Listeners, Adapter classes, Inner Classes. **Abstract Window Toolkit:** Introduction, Components and Containers, Button, Label, Checkbox, Radio Buttons, List Boxes, Choice Boxes, Textfield and Textarea, Container Class, Layouts, Menu, Scrollbar.