

Branch: BCA	Semester-III
Subject Code: 3202	Lecture: 04 Credit: 02
Course Opted	Core Course Practical - 8
Subject Title	JAVA PROGRAMMING - LAB

Course Objectives:

- To develop software skills for developing real world applications using Java Programming language.
- To enable implementation of frontend and backend of an application.
- To implement classical problems using Java programming.
- To be able to use the Java SDK environment to create, debug and run simple Java programs.

Course Outcomes:

- Basic knowledge of programming in JAVA.
- Experience with developing and debugging software in Java.
- Implementation of AWT.
- Able to develop real life projects using database connectivity with JDBC.

Modules	Sr. No.	Topic and Details	No. of Practicals Assigned	Marks Weightage %
UNIT-I	1	Introduction and Programming with java: Implementation of Data Types, Type conversion & Casting, Java Automatic Conversions, Casting Incompatible Types, Arrays: one, Multi-dimensional, Arithmetic, Modulus Assignment, Increment & Decrement, Relational Boolean – Logical operators. Control Statements- All Control Statements, Jump Statement. Classes & Objects: Class Fundamentals- General form, Simple class, Declaring Objects, Assigning Object reference variables.	2	4
	2	Implementation of Constructor & Methods: Constructors, This keyword, Garbage Collection, Finalise() method, A stack Class	2	4
UNIT-II	3	Implementation of Method Overloading: Overloading Recursion, Static, Inheritance& Method Overriding: Basics, Using Super, Multilevel, Overriding, Dynamic Method dispatch, Abstract Classes.	3	6
	4	Special Features of java: Interface & packages, Packages Access Protection, Importing Package, Interface.	3	6
UNIT-III	5	Exception Handling: Implementation of try catch, Multiple catch , Nested Try, throw, throws, finally statements Java's Built-in- Exception	3	6
	6	Implementation of threading: Single and Multiple thread	2	4
	7	I/O Applets: Implementation of I/O functions, Implementation of Applet- Initialisation and Termination, Init(), Start(), Paint(), Stop(), Destroy(), Overriding update(), Simple Applet Display Methods(),	3	6

		Repainting, Using Status window, The HTML Applet tag, Passing parameters to Applets.		
UNIT-IV	8	The Java Library: Implementations String Handling functions	2	4
	9	Implementation of AWT& Layout Managers: Control fundamentals, Adding & Removing controls, Responding to controls, Basic of Swings: Panels, Checkbox, Dialogs and frames, Using menus, Using the adapter class , Using Buttons, Listeners.	3	6
	10	Database Connectivity: Database connectivity with JDBC	2	4
Total			25	50

Text Book:

1. Herb Schildt, "Java 2 the Complete Reference J2se", 5TH Edition , 2003.

References:

1. Jim Farley, William Crawford, David Flanagan,"Java Enterprise in a Nutshell: A Desktop Quick Reference": (Nutshell Handbook).
2. Elliot B. Koffman, "Problem Solving with Java", Temple University Ursula Wolz, College of New Jersey, Copyright 1999, 848 pp. ISBN 0201357437.
3. Jan Skansholm, "Java from the Beginning", Chalmers University of Technology, Sweden, Copyright 2000, 540 pp. ISBN 0201398125.