SILVER OAK UNIVERSITY
College of Computer Application
Bachelor Computer Application
Subject Name: Core Java
Subject Code: 2040233210/2040233204
Semester: 4

MID-SEMESTER EXAM SYLLABUS

Unit No.	Course Contents

1	**Java Introduction**
	  o Introduction of Java
	  o Java Essentials
	  o Java Virtual Machine
	  o Basic concepts of OOPs:
	  o Java Features
	  o Basic Structure of JAVA Program
	  o Difference between Java and C++
	  o Installation of JDK
	  o Creating a JAVA source file
	  o Compiling of JAVA source file and Compilation process
	  o Run the application using JAVA interpreter.
	Java Programming Constructs
	  o Variables
	  o Identifier
	  o Literals
	  o Data Types
	  o Operators
	  o Type conversion and casting
	  o Classes and Objects
	  o Creating Class & Objects
	  o Class declaration in java
	  o Basic Program of Java.

2	**Conditional statements , Array, Class and Object:**
	Control Statements:
	  o Control Statements(IF Statement, IF...Else, IF...Else..IF, Nested ..IF, Switch Case statement)
	  o Looping Statement(While loop, For loop, Do..while loop, Nested Loop)
	Arrays:
	  o One dimensional Array

		o Two dimensional Array
		o Passing arrays to methods and returning arrays frommethod
		o Passing arrays to methods , methods of arrays fill(), sort(), equal(),binary search
		Class and Object:
		o Class variables and class methods
		o Classification of variable declared in a class(local variable, Instance variable, Class variable)
		o Visibility modifiers for Access control (Public, Private , Protected)
		o Instance Operator
		o Constructor and Garbage Collector
		o Static method and Static variable
3		**Inheritance & Multithreaded Programming**
		Inheritance
		o Basics of Inheritance
		o Method Overloading
		o Method Overriding
		o Final Keyword
		o Super Keyword
		o This Keyword
		o Abstract class and method
		o Interface
		Multithreaded Programming
		o Use of Multithread programming
		o Thread class and Runnable interface
		o Thread synchronization,
4		**Package, String Class, Polymorphism**
		Package
		o Introduction of different Packages
		o Creating Packages
		o Using Packages
		o Packages and Member Access
		String and String class
		o String Methods
		o String Class and String Buffer Class
		o String Builder
		Polymorphism
		o Types Of Polymorphism