060010409 – CC11 Java Programming

Unit	Sub Unit	No. of Lectures	Topics	Reference Chapter/Additional Reading	Evaluation Parameter
1		8	**Java Platform and Programming Elements**		
	1.1	3	Introduction 1.1.1 The Creation of Java 1.1.2 Java's Magic: The Byte Code 1.1.3 JVM and JRE 1.1.4 Java Program Structure with simple I/O operation 1.1.5 Character Set, Character Encoding 1.1.6 Escape Sequence, Identifiers, Keywords, Data Types, Scalar Variables 1.1.7 Comments, Whitespaces , Tokens, Literals, Separators, Operators 1.1.8 Type Conversion: Numeric Promotion, Explicit Type Conversion	1.1.1- SCHILDT #1,page no.-6-7 1.1.2- SCHILDT #1,page no.-9-10 1.1.3- BR #2,page no.-35-38 1.1.4- BR #2,page no.-42-43, 45-48 1.1.5- BR #3,page no.-57-58 1.1.6- BR #3,page no.-58-64 1.1.7- BR #3,page no.-65-71 1.1.8- BR #4,page no.-79-80	
	1.2	2	Control Structure 1.2.1 Selection Statement 1.2.2 Iteration Statement 1.2.3 Jump Statement 1.2.4 Block Statements, Declaration Statement, Empty Statement	1.2.1- BR #5,page no. 101-106 1.2.2- BR #5,page no. 107-118 1.2.3- BR #5,page no. 118-120 1.2.4- BR #5,page no. 120-122	
	1.3	3	Arrays 1.3.1 Features of Array 1.3.2 Array Classification 1.3.3 Creation of Regular arrays and jagged arrays 1.3.4 Reading and writing of arrays	1.3.1- BR #6, page no. 148 1.3.2- BR #6, page no. 128-129 1.3.3- BR #6, page no. 129-134 1.3.4- BR #6, page no. 134-147	
2		8	**Classes and Objects**		
	2.1	2	Class Fundamentals, Declaring Objects & Member Methods	BR #7, page no. 167-173	Quiz-1, Unit Test-1
	2.2	1	Constructors & overloading constructor	BR #7, page no. 174-177	
	2.3	1	The this, final Keyword	BR #7, page no. 190-193	
	2.4	2	Garbage Collection and the finalize() method	SCHILDT #6, page no. 125-126	
	2.5	1	Features of Static Members, Static Fields and Methods	BR #7, page no. 194-197	
	2.6	1	Nested and Inner class	BR #7, page no. 201	
3		9	**Inheritance, Interface & Package**		
	3.1	2	Inheritance: Derived Class Declaration, Types of Inheritance, Advantages of Inheritance, Implementation of Inheritance, Super Keyword	BR #8, page no. 206-211, 217-219, 229	
	3.2	1	Inheritance and Member Accessibility	BR #8, page no. 212-213	
	3.3		Constructors in Derived Class	BR #8, page no. 214	

	3.4	1	Overriding	BR #8, page no. 214-216	
	3.5	1	Abstract Classes and Methods, Final Classes and Methods	BR #8, page no. 219-224	
	3.6	1	Dynamic Binding, Polymorphism	BR #8, page no. 225-228	
	3.7	1	Interface: Declaration, Implementation and Polymorphism	BR #9, page no. 236-241	
	3.8	2	Packages	3.8.1- BR #9, page no. 250-253 3.8.2- BR #9, page no. 254-255	
			3.8.1. Creating packages 3.8.2. Accessing classes from packages		
4		8	**Exception Handling and Java Stream**		
	4.1	1	Basic of Exception	BR #10, page no. 264-265	Unit Test-2
	4.2		Throw Statement, Try Statement	BR #10, page no. 265-268	
	4.3	1	Usage of ArithmeticException, ArrayIndexOutofBoundsException, ClassNotFoundException, NullPointerException, IOException	BR #10, page no. 269-271	
	4.4	1	Java Streams	BR #12, page no. 318	
	4.5	2	Java Stream API : Reading and Writing Bytes and Characters	BR #12, page no. 319-323	
	4.6	1	File Management	BR #12, page no. 324-326	
	4.7	2	File Processing: Binary Streams	BR #12, page no. 326-328	
5		8	**Strings and Collections**		
	5.1	2	String class, Constructors, Length, Special String Operations and String Handling Methods	SCHILDT #15,page no. 371-387	
	5.2	1	StringBuffer class	SCHILDT #15,page no. 387-395	
	5.3	1	Overview of Collection Framework	SCHILDT #17,page no. 454-458	
	5.4	2	Collection Framework: Set, List and Map	SCHILDT #17,page no. 459-460, 466-469, 482-483	
	5.5	2	StringTokenizer class	SCHILDT #18,page no. 525-526	
6		6	**JDBC**		
	6.1	1	Types of JDBC Drivers	BR #18, page no. 501	Internal
	6.2	1	Configuration for JDBC connection	BR #18, page no. 504-507	
	6.3	3	JDBC operations 6.3.1. Update and Query Operations 6.3.2. Prepared Statements 6.3.3. Store Procedure	6.3.1- BR #18, page no. 507-514 6.3.2- BR #18, page no. 514-515 6.3.3- BR #18, page no. 515-517	
	6.4	2	JDBC Transaction support	BR #18, page no. 517-520	

References:

1. Buyya, R., et. al. Object-oriented Programming with Java: Essentials and Applications, McGraw Hill [**BR**]
2. Herbert Schildt, The Complete reference Java, McGraw Hill[**Schildt**]

Note : # denotes chapter number.