Table of Contents

	Page
Introduction	1
Unit 1: The Basics of a Java Program	4
1. My First Java Program	4
1.1. Setting the Paths	4
1.2. Using a Text Editor	6
1.3. Compiling and Executing a Java Source Code	7
1.4. Errors	7
2. The Java Program Structure	8
2.1. Java Statements and Blocks	10
2.2. Java Identifiers	10
2.3. Java Literals and Constants	12
2.4. Primitive Data Types	13
2.5. String Class	15
2.6. Program Variables	15
3. Operators	19
3.1. Assignment Operator	19
3.2. Arithmetic Operations	21
3.3. Increment and Decrement Operators	23
3.4. Relational Operators	24
3.5 Logical Operators	25
3.6 Conditional Operator	30
3.7 Operator Precedence	31
4. Getting Input from Keyboard	31
4.1. Inputting other Data Types	33
Laboratory Activities:	
Prelim Lab Activity 1: My First Java Program	35
Prelim Lab Activity 2: Identifiers and Variables	40
Prelim Lab Activity 3: Arithmetic Operators	44
Prelim Lab Activity 4: Relational Operators	49
Prelim Lab Activity 5: Logical Operators	53
Prelim Lab Activity 6: Input / Output	58
Unit 2: Control Structures	63
1. Control Flows	63
1.1 Different Types of Control Structures in Java	63

2. Sequential Control Structures 63
3. Decision Control Structures 63
3.1. if Statement 64
3.2. if – else Statement 70
3.3. Nested if Statement 72
3.4. Cascading if – else Statement 75
3.5. switch Statement 78

4. Iterative or Loop Control Structures 82
4.1. while Loop 82
4.2. for Loop 84
4.3. do – while Loop 87
4.4. Other Implementation of Loops 88
4.5. Counters 89
4.6. Accumulators 90

Laboratory Activities:
Midterm Activity 1: if-else Statement 92
Midterm Activity 2: switch Statement 103
Midterm Activity 3: Loops 109
Midterm Activity 4: Counters and Accumulators 118

Unit 3: Arrays and Introduction to Methods 125
1. Java Arrays 125
1.1. Declaring One-Dimensional Arrays 125
1.2. Declaring Two-Dimensional Arrays 129
1.3. Array Lengths 134

2. Java Methods 135
2.1. Declaring Static Methods 135
2.2. Calling Static Methods 136
2.3. Passing Variables in Methods 139
2.4. Methods with Return Types 141
2.5 Things to Remember About Methods 144

3. Scope of Variable 144

Laboratory Activities:
Final Lab Activity 1: One Dimensional Array 146
Final Lab Activity 2: Two Dimensional Array 154
Final Lab Activity 3: Introduction to Methods 165

References 172