

# SEC – Programming in Java

## Unit 1

**Introduction to Java:** Features of Java, JDK environment, structure of Java programs

## Unit 2

**Programming Fundamentals:** Data types, variables, operators, expressions, arrays, keywords, naming convention, decision making constructs, iteration, type casting, methods.

## Unit 3

**Object Oriented Programming Overview:** Abstraction, encapsulation, inheritance, polymorphism.

## Unit 4

**Classes and Objects:** Creating classes and objects, modifiers and access control, constructors, implementation of single and multilevel inheritance, implementation of polymorphism using overloading, overriding and dynamic method dispatch.

## Unit 5

**Strings:** String class methods, string buffer methods.

## References

1. Horstmann, C. S. (2017). *Core Java - Vol. I – Fundamentals (10th Edition)*. Pearson.

## Additional Resources

1. Balagurusamy, E. (2014). *Programming with JAVA: A Primer (5th Edition)*. McGraw Hill Education (India) Private Limited.

2. Schildt, H. (2018). *Java: The Complete Reference (10th Edition)*. McGraw-Hill Education.

3. Schildt, H. & Skrien, D. (2013). *Java Fundamentals - A comprehensive Introduction*. TMH.