## B.Sc. V Sem.

# **Programming in Java**

## **Important Topics**

#### Unit-I:

- 1. Explain various features of Java.
- 2. Data Types in Java
- 3. Explain the Structure of Java Program. Briefly explain compilation and execution process in Java.
- 4. Explain various Control Statements in Java.(If statements, Loops, Switch case, break and continue.)
- 5. Define Classes and Objects. Explain the process of creating objects in Java

#### Unit-II:

- 1. Define Constructor with an example.
- 2. What is Garbage Collection?
- 3. Constructor Overloading vs Method Overloading.
- 4. Write a program using Two-Dimensional Array (Matrix Multiplication)
- 5. Define Inheritance. Explain various types of Inheritance.
- 6. Compare Abstract Classes vs Interfaces.
- 7. Compare Classes vs Interfaces. (or) Explain the keywords "extends" and "implements".
- 8. Explain the process of creating and accessing a Package in java
- 9. Define Wrapper classes.
- 10. Explain the various methods of String and StringBuffer classes.

#### Unit-III:

- 1. Define Exception. Name various types of Exception.
- 2. Explain Exception Handling Techniques in Java (try.. catch, finally, throws etc.)
- 3. Explain the process of creating User-defined Exception.
- 4. Explain the process of creating Threads in Java. (or) Compare Thread class vs Runnable interface.
- 5. Thread Life Cycle
- 6. Briefly explain Thread Priority in Java
- 7. What is Thread Synchronization?
- 8. Explain java.io & java.util packages.
- 9. FileInputStream vs FileOutputStream
- 10. BuferredInputStream vs BufferedOutputStream

### **Unit-IV:**

- 1. Applet Life Cycle.
- 2. Explain the process of creating an Applet with an example.
- 3. Explain AWT Components (Label, Button, Text Field, Checkbox etc.)
- 4. Explain Event Handling and Event Listeners in Applets
- 5. Differentiate AWT and Swings.
- 6. Components of Swings.
- 7. JDBC Drivers