

## SEMESTER- V

**COURSE CODE** :- **CC11**  
**COURSE TITLE** :- **PROGRAMMING IN JAVA**  
**CREDIT** :- **4**

Marks distribution

Full Marks: 20 (MSE) + 80 (ESE) = 100 Times: 3 hrs

Pass Marks: 45

This paper consists of 80 marks and divided into two groups:

Group-A: Objective questions (Compulsory) : 1 x 10 = 10

Group-B: Descriptive questions (7 out of 10 questions) : 7 x 10 = 60

Total = 80

The questions must cover the entire syllabus with equal distribution of marks as far as practicable.

**Module 1:** Introduction to Java: History of Java, features of Java, types of Java programs. JDK Tools: Javac compiler, Java interpreter, applet viewer, Java tools, Javap disassemble, Javadoc Tool, JavahTool, Java keywords,

**Module 2:** Data types in Java, Variable naming conventions, Initializing variables, literals, operators, type conversion, construct, looping construct, Arrays and vectors.

**Module 3:** Classes and objects: Declaring classes, creating objects, declaring objects, declaring methods, passing arguments to methods,

**Module 4:** Constructors, access specifiers (public, private, protected, Default), modifiers, the Method Overloading, Method Overriding, Garbage collection (Introduction).

**Module 5:** Inheritance: Introduction to Inheritance, Types of Inheritance Abstract class and Interface

**Module 6:** Introduction to threads: Threads, Single threaded and multithreaded applications, life cycle of a Thread, the current thread, the thread class, Problems in multithreading.

**Module 7:** Packages: Java packages, using a package, the Lang packages, the package, the creating a package.

**Module 8:** Applets & Applications: Applet class, Applet & HTML, Life cycle of an Applet, Graphic class (Introduction) , Passing parameters to Applets, Creating an application

---

### **Books Recommended:**

1. Java- Complete Reference
2. Mastering Java

### **PRACTICAL: Programming in JAVA**

Entire syllabus of java Programming