II Year B Com (CA)– Semester – IV

Course 4E: Object Oriented Programming with Java

Learning Outcomes:

At the end of the course, the student will able to;

➢ Understanding the meaning and necessity of audit in modern era

➢ Comprehend the role of auditor in avoiding the corporate frauds

➢ Identify the steps involved in performing audit process

➢ Determine the appropriate audit report for a given audit situation

➢ Apply auditing practices to different types of business entities

➢ Plan an audit by considering concepts of evidence, risk and materiality

SYLLABUS:

Unit I: Introduction to OOPs: Problems in Procedure Oriented Approach, Features of Object Oriented Programming
Introduction to Java: Features of Java, The Java Virtual Machine (JVM), Parts of Java program, Naming Conventions in Java, Data Types in Java, Operators in Java, Reading Input using scanner Class, Displaying Output using System. out.println (), Command Line Arguments.

Unit II: Control Statements in Java: if... else, do... while Loop, while Loop, For loop, Switch Statement, break Statement, continue Statement
Arrays: Types of Arrays, array name, length,
Strings: Creating Strings, String Class Methods, String Comparison, Immutability of Strings.

Unit III: Classes and Objects: Object Creation, Initializing the Instance Variables, Access Specifiers, Constructors
Inheritance: Inheritance, Types of Inheritance
Polymorphism: Method overloading, Operator overloading
Abstract Classes: Abstract Method and Abstract Class

Unit IV: Packages: Package, Different Types of Packages, Creating Package and Accessing a Package
Streams: Stream classes, Creating a File using File Output Stream, Reading Data from a File using File Input Stream, Creating a File using File Writer, Reading a File using File Reader

Unit V: Exception Handling: Errors in Java Program, Exceptions, throws Clause, throwClause, Types of Exceptions

Threads: Single Tasking, Multi-Tasking, Uses of Threads, Creating a Thread and Running it,Terminating the Thread, Thread Class Methods.

References:
1. The Complete Reference JAVA Seventh Edition Herbert Schildt. Tata McGraw HillEdition.
2. Core Java: An Integrated Approach, Dr. R. Nageswara Rao & Kogent Learning SolutionsInc.
3. E. Balaguruswamy, Programming with JAVA, A primer, 3e, TATA McGrawHillCompany