

CORE COURSE IX: 5B09CSC JAVA PROGRAMMING

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HRS
5	5B09CSC	4	4	3

COURSE OUTCOME

CO1: Know the overall structure and concept of logic building activity of Java programming language

CO2. Identify the real-world things as well as the relationship between them and understand transforming them into their corresponding computer representations.

CO3. Realize how to achieve code reusability using inheritance, interfaces and packages and expedite application development activities.

CO4. Familiarize simple and robust way of handling multitasking and runtime error as well as such kind of abnormal situations within a program.

CO5. Design GUI based applications and applications that can be transmitted over internet.

Unit I:

Introduction to Java programming: Java history; features of java; Byte Code; Overview of Java, Java Language fundamentals: Building blocks; Data types; variables And Arrays. Operators - Arithmetic, Bitwise, Relational, Boolean Logical, Assignment; Control statements.

(12 Hrs)

Unit II:

Introducing Classes: Class fundamentals; Introducing methods; Declaring Objects; Constructors; This keyword; Garbage collection; the finalize method; A closer look at methods and classes; Inheritance basics; Using Super; When Constructors are called; Method Overriding; Dynamic method dispatch; Abstract classes; Uses of final keyword.

(20 Hrs)

Unit III:

Packages: Introduction-Creating a Package- CLASSPATH; Accessing a package- simple program using package; Interfaces: definition-extending interface-implementing interface-simple programs using interface. Exception handling: Basics; Try, catch, finally, multiple catch, nested try, throw; User Defined exception; Chained Exception; Multi-threading: introduction -Creating threads; thread life cycle; thread Priorities, Synchronization. Enumeration and Auto boxing.

(20 Hrs)

Unit IV:

Applets: Fundamentals [page- 318]; Applet skeleton [pg-751], The HTML APPLET tags; The Abstract Window Toolkit:- Introduction to AWT classes; AWT controls (Labels, Buttons, Check box, Radio buttons; Choice control; List, Text box, Scroll bars). Event handling of Buttons and keyboard, Introduction to JDBC.

(20 Hrs)

Books for Study:

1. Java The Complete Reference-Ninth Edition- Oracle Press- Herbert Schildt

Books for Reference:

1. Java complete reference by BalaguruSwamy
2. Core Java 2, Cay S. Horstmann, Gary Cornell, Pearson Education
3. Dr. S. B. Kishor, Rajani Singh etc, PROGRAMMING IN JAVA, 1st Ed. published by DAS GANU Prakashan, Nagpur in Mar. 2018. (ISBN: 978-93-84336-49-3)

Marks including choice:

Unit	Marks
I	15
II	15
III	15
IV	15