

PROGRAMMING IN JAVA

Semester	Subject Code	Category	Lecture Hrs		Theory Hrs		Practical		Credits
			Per week	Per Sem	Per week	Per Sem	Per week	Per Sem	
VI		Core Theory-VIII	8	120	8	120	0	0	4

COURSE OBJECTIVE

This course provides an introduction to object oriented programming (OOP) using the Java programming language. Students should know about the model of object oriented programming: abstract data types, encapsulation, inheritance and polymorphism.

COURSE OUTCOME

On successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level (K1-K4)
CO1	Able to understand the basics of OOP and Object oriented approach with programming primitives	K1,
CO2	Able to design and Implement programs using classes and objects, operator overloading and Inheritance	K2
CO3	Able to understand and design Package with Inter- Thread communication	K3
CO4	Able to Learn the Applet and AWT Concepts	K2
CO5	Able to create Object and files.	K3

Knowledge Level – K1-Remember, K2- Understand, K3-Apply, K4-Analyze

MAPPING WITH PROGRAMME OUTCOME

COS	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6
CO	M	M	M	M	L	L
CO2	M	M	S	M	M	M
CO3	S	S	S	S	M	S
CO4	S	S	S	S	S	S
CO5	S	S	S	S	S	S

S-Strong

M-Medium

L-Low

SYLLABUS

UNIT I – BASICS OF OOP'S & JAVA

25 Hrs

Object Oriented Concepts - Introduction to Java - Data Types - Variables - Arrays - Operators - Control Statements - Console I/O - Scanner - Class and Methods - Print () - Println () & Printf () methods.

UNIT II – CLASSES & OBJECTS

25 Hrs

Classes - Objects - Constructors - Overloading - Method - Access Control - Static data members fixed and methods - String Class - Inheritance - Overriding methods - Using super - Abstract class - Introduction to Java API Packages (Java. Lang, Java.uti, Java. Math.

UNIT III – PACKAGES AND THREAD

25 Hrs

Packages - Access Protection - Importing Packages - Interfaces - Exception Handling - Throw and Throws - Thread - Synchronization - Messaging - Runnable Interface - Interface - Inter thread Communication -Multithreading.

UNIT IV – APPLET & AWT CONTROLS

26 Hrs

GUI Components – Simple GUI based I/O using J option Panel – Overview of Swing Components – Introduction to Event Handling with

nested classes – GUI event types and Listener Interfaces – JButton – JCheckBox, JRadioButton, JComboBox, JList, MouseEvent handling, Adapter classes, JPanel – Key Event handling – Layout Marques – Flow layout, Border Layout, Grid Layout-JTextArea – Introduction to Applets.

UNIT V – GRAPHICS AND JAVA 2.1

27 Hrs

Graphics and JAVA 2.1- Graphics Contexts and Graphic Objects- Color and Font Control – Drawing Lines , Rectangles – Using menus with Frames – File and Streams.

Distribution of Marks: Theory 80% and Applications: 20%

TEXT BOOKS

S.No	Authors	Title	Publishers	Year of publication
1	C. Muthu	Programming in Java	TMH	2009

REFERENCE BOOK

S.No	Authors	Title	Publishers	Year of publication
1	Herbert Schildt	The Complete reference JAVA 2	Tata MC Graw Hill	2000
2	Deitel & Deitel	Java How to program	PHI	2005
3	E. Balagurusamy	Programming With Java	Tata MC Graw Hill	2008
4	DtEditorial Services	Java Programming- Black Book	John Wiley	2015
5.	Robert Sedgewick	Introduction to programming in Java	Pearson Education	2014
6.	E. Balagurusway	Programming in Java Primer	Tata MC Graw Hill	1998
7.	Kathy Sierra & Bert Bates	A Brain Friendly Guide Head First Java	O Reilly	2019
8.	Paul Dietel & Harvey Deitel	Java How to program	Pearson Education	2017-11th edition

WEB RESOURCES

1. <https://beginnersbook.com/java-tutorial-for-beginners-with-examples/>
2. <https://www.edureka.co/blog/java-tutorial/>

TEACHING METHODOLOGY

- Class room teaching.
- Group discussions
- Seminars
- Demo using systems
- Chart/Assignment
- Simulation Model
- Smart Class room

SYLLABUS DESIGNERS

1. Mrs.G. Sangeetha Lakshmi, Assistant Professor and Head, Computer Applications
2. Mrs.V. Lakshmi Pratha, Assistant Professor, Department of Computer Science
3. Mrs. R. Bhuvaneshwari, Assistant Professor, Department of Computer Applications