SITA1301	PROGRAMMING IN JAVA	L	T	P	Credits	Total Marks
		3	0	0	3	100

COURSE OBJECTIVES

- To introduce Object Oriented concepts in Java.
- To understand Packages, Interfaces and Multithreading Concepts.
- To understand lang, io packages.
- To understand the concepts involved internet application development.
- To understand the internet application design using swing controls.

UNIT 1 INTRODUCTION TO JAVA 9 Hrs.

Classes and Objects – Class Fundamentals – Declaring Objects – Methods – Constructors – Garbage Collection. Inheritance – Basics – Using Super – Method Overriding – Abstract Classes – Using final with inheritance. String Handling – String class – String buffer class.

UNIT 2 PACKAGES, INTERFACES AND THREADS 9 Hrs.

Introduction to Packages – User Defined Packages - Importing packages – Access protection – Interfaces – Exception Handling - Exception Types – Using try, catch, throw, throws and finally –Multithreading – Java Thread Model – Main thread – Creating multiple thread – Thread priorities – Synchronization.

UNIT 3 LANG AND IO PACKAGES 9 Hrs.

Java. lang package - Wrapper Classes– Simple type wrappers – Using clone() and the Cloneable Interface -IO Package - Introduction – Input Stream and Output Stream classes - Data Output Stream and Data Input Stream classes –FileInput Stream – File Output Stream. - Reader and Writer Classes – File Reader and File Writer.

UNIT 4 APPLET PROGRAMMING AND EVENT HANDLING 9 Hrs.

Applet Class – Applet basics – HTML APPLET tag – Passing parameters to applets -Delegation Event Model – Handling Mouse and Keyboard Events – Adapter Classes.

UNIT 5 SWINGS AND DATABASE CONNECTIVITY 9 Hrs.

Introduction - JApplet Class- JLabel Control - JTextField Control –JButton Control –JCheckbox Control-JRadioButton Control – J ComboBox Control – JtappedPane Control-J ScrollPane Control - JTable. Introduction –Establishing Connection – Creation of Data Tables – Entering Data into the Tables- Table Updating.

Max. 45 Hrs.

COURSE OUTCOMES

On completion of the course, student will be able to

CO1 - Develop application programs using java object oriented concepts.
CO2 - Implement the interface, package and multithread concepts.
CO3 - Implement various built in packages and its applications.
CO4 - Develop web based applications using applet programming.
CO5 - Implement Swing concepts in real time applications.
CO6 - Design the internet applications frontend and connect with backend using database connectivity.

TEXT / REFERENCE BOOKS

1. Herbert Schildt ,"The Complete Reference JAVA2", 5th Edition, Tata McGraw Hill, 2017.
2. Bruce Eckel , "Thinking in Java", Pearson Education, 4th Edition 2006.
3. Core Java Volume-I Fundamentals, 9th Edition, Cay Horstman and Grazy Cornell, Prentice Hall, 2013.
4. https://docs.oracle.com/javase/tutorial/.
5. https://www.tutorialspoint.com/java/.

END SEMESTER EXAMINATION QUESTION PAPER PATTERN

Max. Marks : 100 **Exam Duration : 3 Hrs.**
PART A : 10 Questions of 2 marks each-No choice **20 Marks**
PART B : 2 Questions from each unit with internal choice, each carrying 16 marks **80 Marks**