PO's	1	2	3	4	5	6	7	8	9	10	11	12
Level	H	M	L						L			M

SREENIDHI INSTITUTE OF SCIENCE AND TECHNOLOGY
Syllabus for B.Tech CSE II year I Semester
OBJECT ORIENTED PROGRAMMING THROUGH JAVA
(Common to CSE, IT and ECM)

L	T	P/D	C
2	1	0	3

Code: 9EC02

Course Objective:

1. Understand the concepts of Object oriented programming principles of Java.
2. Write the programs and execute using OOP Principles such as garbage collection, overloading methods, constructors, recursion, string handling, StringTokenizer, inheritance and its types, packages, multithreading and threads.

Course Outcomes:
After completion of the course, the student will be able to:
1. Illustrate the concepts of Object Oriented Programming in Java [L2]
2. Apply AWT/SWING controls and applets to develop applications [L3]
3. Utilize multithreading and exception handling concepts to build applications [L3]
4. Develop applications using I/O streams. packages and collections frame work [L3]
5. Build client-server applications [L3]

UNIT I

History of Java, Java buzzwords, datatypes, variables, simple java program, scope and life time of variables, operators, expressions, control statements, type conversion and costing, arrays,, classes and objects – concepts of classes, objects, constructors, methods, access control, this keyword, garbage collection, overloading methods and constructors, recursion, string handling, StringTokenizer.

Applications: Basic operations on the bank account of a customer.

UNIT II

Inheritance –Definition, single inheritance, benefits of inheritance, Member access rules, super class, polymorphism- method overriding, Dynamic method dispatch, using final with inheritance, abstract classes, Base class object.

Interfaces: definition, variables and methods in interfaces, differences between classes and interfaces, usage of implements and extends keyword, interfaces, uses of interfaces, packages Applications: Extending the banking operations to the loan applicants.

UNIT III

Packages: Definition, types of packages, Creating and importing a user defined package. Introduction to I/O programming: DataInputStream, DataOutputStream, FileInputStream, FileOutputStream, BufferedReader.

Collections: interfaces, Implementation classes, and Algorithms (such as sorting and searching).