COURSE TITLE : OOP THROUGH JAVA
COURSE CODE : 3069
COURSE CATEGORY : B
PERIODS / WEEK : 4
PERIODS/SEMESTER : 72
CREDITS : 4

TIME SCHEDULE

MODULE	TOPICS	PERIODS
1	Classes and Objects	17
	Test I	1
2	Inheritance and Polymorphism	17
	Test II	1
3	Multithreading and Exception Handling	17
	Test III	1
4	Exception Handling ,I/O streams and Applets	17
	Test IV	1
	Total	**72**

OBJECTIVES

At the end of the course the student should be able to

MODULE I

1.1.0 Understanding Object Oriented Programming.
- 1.1.1 Compare POP and OOPs.
- 1.1.2 Understanding the basic concepts of OOPs.
- 1.1.3 List the benefits of OOPs.
- 1.1.4 List the applications of OOPs.
- 1.1.5 Case study of Objects.
- 1.1.6 Overview of Java.
- 1.1.7 Understanding classes, objects and methods.
- 1.1.8 Understanding Constructors.
- 1.1.9 Understanding Operator overloading.
- 1.1.10 Understanding Function overloading.

MODULE II

2.1.0 Inheritance and Polymorphism
- 2.2.1 Understanding Inheritance
- 2.2.2 Visibility Controls in Java.
- 2.2.3 Understanding Interfaces.
- 2.2.4 Multiple Inheritance.
- 2.2.5 Defining Interfaces.
- 2.2.6 Extending Interfaces.
- 2.2.7 Implementing Interfaces.

MODULE III

3.1.0 Multithreading and Exception Handling

3.1.1 Understanding Java API Packages.
3.1.2 Using system packages.
3.1.3 Naming conventions.
3.1.4 Creating packages.
3.1.5 Accessing Packages.
3.1.6 Using a Package.
3.1.7 Explain Threads.
3.1.8 Explain the life cycle of a thread.
3.1.9 Understanding thread exception.
3.1.10 Explain Synchronization.

MODULE IV

4.1.0 Exceptions and Exception handling.
4.1.1 Files in java.
4.1.2 Concepts of streams.
4.1.3 Stream classes.
4.1.4 Input / Output Exceptions.
4.1.5 Understanding creation of files.
4.1.6 Applet programming.
4.1.7 Applet life cycle.

CONTENT OUTLINE

MODULE I

Object Oriented Programming, POP and OOPs, Basic concepts of OOPs, Benefits of OOPs, Applications of OOPs, Overview of Java, Classes, objects and methods, Constructors, Operator overloading, Function overloading.

MODULE II

Understanding Inheritance, Polymorphism, Visibility Controls in Java, Understanding Interfaces, Multiple Inheritance, Defining Interfaces, Extending Interfaces, Implementing Interfaces.

MODULE III

Multithreading and Exception Handling, Java API Packages, System packages, Naming conventions, Creating packages, Accessing Packages, Using a Package, Explain Threads, Life cycle of a thread, Thread exception, Synchronization.

MODULE IV

Exceptions and Exception handling, Files in java, Concepts of streams, Stream classes, Input / Output Exceptions, Creation of files, Applet programming, Applet life cycle.

TEXT BOOK:-

Programming with Java , A primer, Third Edition by E. Balagurusamy ,Tata Mc Graw-Hill Publishing Company limited , New Delhi.

REFERENCE :-

Programming with Java, T.V.Suresh Kumar, B.Eswara Reddy, P Raghavan,
Pearson.