

# 10B17CI371: Object Oriented Programming Lab

**Course Credit: 1**

**Semester: III**

## **Objective:**

1. To strengthen their problem solving ability by applying the characteristics of an object-oriented approach.
2. To introduce object oriented concepts in C++ and Java.

## **Learning Outcomes:**

1. Explain what constitutes an object-oriented approach to programming and identify potential benefits of object-oriented programming over other approaches.
2. Apply an object-oriented approach to developing applications of varying complexities

## **List of Experiments**

S NO	Topics
1	Objects, Classes, Methods, Constructors and Destructors
2	Static members and Friend Functions
3	Inheritance
4	File Handling
5	Operator Overloading
6	Conversion Functions
7	Polymorphism and Virtual Functions in C++
8	Class Template and Function Template in C++
9	Defining Objects, Classes and Inheritance in Java
10	Multithreading
11	Exception Handling in Java
12	Packages, Interfaces and Abstract classes in Java
13	Container classes in Java

## **References**

1. Grady Booch, James Rumbaugh, Ivar Jacobson, "Unified Modelling Language user's guide", Addison Wesley Limited
2. Lafore R., Object oriented programming in C++, Waite Group
3. Stroustrup B., The C++ Programming Language, Addison Wesley
4. Langsam, Augstein, Tenenbaum: Data Structures using C and C++
5. Sahani, Sartaj: Data Structures in C++/Data Structures in Java
6. Java 2: The Complete Reference, Fifth Edition -- by Herbert Schildt

**Evaluation Scheme:**

S.No	Examination	Marks
1	T-1	15
2	T-2	25
3	T-3	35
4	*Internal Marks	25

\*Internal Marks Breakdown:

Assignments            9 marks (3x3)

Quizzes                12 marks (3x4)

Regularity            4 Marks