19BSM605- Object Oriented Programming										
	Te	ach	ing S	Scheme	Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		TotalMarks
					MS	ES	IA	LW	LE/Viva	
3	1		4	4	25	50	25			100
OR THOUSE THE										

### **OBJECTIVES**

- 1. Understanding about object oriented programming
- 2. Learn how to store one object into another object
- 3. Understanding the process of exposing essential data and hiding the low level data
- 4. Create and process data in files using file I/O functions

# **SYLLABUS**

Unit-I 10

**Introduction and Language features:** How C++ differs from C, Variable Declaration, Function Overloading, Optional Parameters, Reference Variable, Basics of Console Input and Output, Predefined class in C++. Building objects with classes, Defining operations on objects, Dynamic Memory Allocation

UNIT II

**Object Oriented Programming Concepts:** Overview of OOPs principles, Introduction to classes & Objects, Creation & destruction of objects, the Pointer

UNIT III 10

**Inheritance:** Introduction and benefits, Types of Inheritance, Virtual functions and Function overriding, Destructor overriding, Polymorphism

UNIT IV

**I/O Streams:** C++ Class Hierarchy, File Stream, Text File Handling, Binary File Handling, Overloading << and >> operators.

# APPROXIMATE TOTAL

39 Hours

#### **OUTCOMES**

- 1. Apply elementary techniques involving arithmetic operators and mathematical
  - expressions in C++ programming
- 2. Choose an appropriate data type to represent data
- 3. Write C++ programs that use selection (if, switch, conditional operator)
- 4. Write C++ programs that use loops (while, do while, for)
- 5. Write C++ programs that use sequential files for input and output
- 6. Write C++ programs that make use of functions for transfer of control
- 7. Write C++ programs that use arrays, including sorting and searching arrays
- 8. Write C++ programs that use pointers
- 9. Solve programming problems using C++

# **TEXTS AND REFERENCES**

- 1 Object-Oriented Programming with C++,Balagurusamy, TMH.
- 2. Object Oriented Programming & C++, R. Rajaram, New Age International.
- 3. C++ The complete Reference, Schildt, 4th Ed, TMH. Age International.
- 4. Object-Oriented Programming with C++ & JAVA, Samanta, PHI.

