

I BCA	<b>PROGRAMMING IN C++</b> <b>For the students admitted in the year 2010</b>	CA203S
SEM - II		CREDIT - 5
CORE 3		HRS/WK- 5

**Objective:** To learn all the concepts involved in Object Oriented Programming with reference to C++.

**UNIT-I [15 Hrs]**

**Principles of Object Oriented Programming(OOP):** Evolution of C++ - Programming Paradigms – Key Concepts of OOP – Advantages of OOP – Usage of OOP and C++.

**UNIT-II [15 Hrs]**

**C++ fundamentals:** Input and Output in C++ - Streams-Stream classes Unformatted console I/O operations-Member functions of istream class-manipulators-manipulators with parameters Introduction to C++; Tokens, Keywords, Identifiers, Variables, Operators,

**UNIT-III [15 Hrs]**

**Functions and polymorphism:** Expressions and Control Structures in C++; Pointers and arrays – Functions in C++ - Main Function – Function Prototyping – Parameters Passing in Functions – Values Return by Functions – inline Functions – Function Overloading.

**UNIT-IV [15 Hrs]**

**Inheritance:** Classes and Objects: Constructors and Destructors; and Operator Overloading and Type Conversions – Type of Constructors – Inheritance: Single Inheritance – Multilevel inheritance – Multiple inheritance – Hierarchical Inheritance – Hybrid Inheritance. Pointers, Virtual Functions and Polymorphism

**UNIT-V [15 Hrs]**

**Working with Files:** Classes for File Stream Operations – Opening and Closing a File – End-of-File Detection – File Pointers – Updating a File – Error Handling during File Operations – Command-line Arguments.

**TEXT BOOKS**

1. E.Balagurusamy-Object Oriented Programming with C++.TMH-1995
2. H.Schildt,C++: The Complete Reference,TMH-1998
3. Robert Lafore, Object Oriented Programming in Microsoft C++, Galgotia Publication.
4. Ashok N.Kamthane, Object Oriented Programming with ANSI & Turbo C++, Pearson Education, 2006.