

I B.Sc (CS)	OBJECT ORIENTED PROGRAMMING IN C++	CS203S
SEMESTER - II		HRS/WK-4
CORE – 3		CREDIT - 3

Objective:

This paper deals with all the concepts involved in Object Oriented programming with reference to C++ .

UNIT –I

10 hrs

OOP'S: Principles of Object Oriented Programming [OOP]: Evolution of C++ - Programming paradigms – Key concept of OOP – Advantages of OOP- Usage of OOP and C++ - Input and Output in C++ - Streams.

UNIT-II

10 hrs

C++ Fundamentals and Functions: Stream classes-Unformatted console I/O Operations – Introduction to C++ - Tokens, Keywords, Identifiers, Variables, Operators, Expressions and Control structures in C++ pointers and arrays –Function in C++ - Main function– function prototyping –Parameters passing in Functions – Values Return by functions –Inline Functions –Function overloading.

UNIT-III

15 hrs

Object Manipulation and Polymorphism: Classes and objects; Constructors and Destructors; and Operator Overloading and type Conversion –Friend and Virtual functions.

UNIT-IV

15 hrs

Inheritance: Single Inheritance – Multilevel inheritance – Multiple inheritances –Hierarchical – Hybrid Inheritance - Virtual Base class-Virtual Functions and Polymorphism

UNIT-V

10 hrs

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

Text Books:

1. E.Balagurusamy, Object Oriented Programming with C++.
2. The C++ Programming Language: Special Edition by [Bjarne Stroustrup](#)
3. C++ Primer by Stanley B. Lippman, Josie Lajoie, and Barbara E. Moo

Reference Books:

1. Ashok N. Kamthane, Object Oriented Programming with ANSI & Turbo C + +, Pearson Education, Practical C++ Programming, by Steve Oualline
2. C++ Without Fear: A Beginner's Guide That Makes You Feel Smart by Brian R. Overland

NOTE:

Please refer text book 1 for Question Paper and key preparation.