

Andhra Pradesh State Council of Higher Education
**B.Sc Computer Science /Information Technology Under CBCS with effect from
Academic Year 2016-2017
Revised in April, 2016
I B.SC; II SEMESTER**

Object Oriented Programming with C++

Unit-1

Introduction:- Programming Language generations, Object Oriented Paradigm, Basics of OOPs, Benefits, Applications of OOPs, Object Oriented Languages, Difference between OOPs and Procedure Oriented Programming

Unit - 2

Introduction to C++, General Structure of a C++ program, cin and cout objects, Keywords, identifiers, Constants, variables, Data types in C++, Operators-scope resolution operator, Control structures: Conditional statements and Looping statements, Functions –function with default arguments, inline functions, function overloading, reference variables Arrays - Single and multidimensional arrays.

Unit-3

Object and Classes-Structure and Class, Defining a class, defining member functions, member function with object as arguments and argument as return type, array of objects, static member data and member function, friend function and friend class.Constructor and destructors-characteristics of constructor, constructor types-default, parameterized, copy and dynamic, constructor overloading.

Unit-4

Operator overloading, defining operator function, overloading unary, binary and relational operators Inheritance-benefits of inheritance, types of inheritance, methods overriding, virtual functions.

Unit- 5

C++ Streams and File handling-Stream class, unformatted i/o operations, formatting of output-ios class functions and flags, manipulators, Files-File classes, file types, file functions. Error handling in file operations, command line arguments

Reference Books

1. Object Oriented Programming with C++ - M.T. Somashekara, D.S.Guru, H.S. Nagendraswamy, K.S. Manjunatha, PHI 2nd Edition
 2. Object Oriented Programming with C++ - E. Balagurusamy, 4th Edition, Tata Mc Graw Hill Publication
 3. Object Oriented Programming in C++ - Robert Lafore, 4th Edition, Pearson Education
- Object-Oriented Programming with ANSI and Turbo C++.