

Syllabus for B.Sc-IT Course

at S.P. College

SEMESTER -- III

COURSE TITLE :- PROGRAMMING IN C ++

COURSE CODE--BIT—303

UNIT I

Introduction to object oriented approach (OOA) and object oriented programming (OOP), concept of objects and classes.

Features of OOP- Inheritance, polymorphism, encapsulation, abstraction, advantages of OOP over structured programming.

UNIT II

Introduction to the object oriented programming (C++) with general basic features of operators and control structure (if (), if-else (), while (), do--while (), for (), etc.)

UNIT III

Specifying class, defining member functions and member variables, inline functions, scope resolution operator, access specifiers and accessing member functions, parameter passing, object as function argument and returning objects.

Constructors: parameterized, multiple constructors in class, copy constructor, destructors, friend functions, friend class, operator overloading (unary, binary), function overloading.

UNIT IV

Virtual Base Class , abstract class , pointers to objects , this pointer , pointer to derived class , virtual functions , pure virtual function , polymorphism : an example.

Inheritance: defining derived classes. Inheritance types: single, multilevel, multiple & hybrid inheritance.

Books Recommended:

1. "Turbo C++ Programming", Robert Lefore
2. "Object-Oriented Programming with C++" by E BALAGURUSUMY
3. "THE COMPLETE REFERENCE C++" by HERBERT SEHILDT