

Core Course – IX - C++ Programming

Unit I

What is Object Oriented Programming? – C++ Console I/O- C++ comments- Classes: Some difference between C and C++ - Introducing Function Overloading - Constructor and Destructor Functions- Constructors take parameters- Introducing Inheritance – Object Pointers – In line Functions – Automatic in lining.

Unit II

Assigning Objects – Passing Object to Functions – Returning Object from Functions- An Introduction to friend functions- Arrays of objects – Using Pointers to Objects – Using new & delete – More about new & delete – references – Passing references to objects - Returning references- Independent References and restrictions.

Unit III

Overloading Constructor Functions- Creating and Using a Copy constructor- Using default arguments- Overloading and ambiguity – Finding the address of an overload function- the basics of operator overloading- overloading binary operators-overloading the relational and logical operators- overloading a Unary operator – using friend operator functions- a closer at the assignment operator- overloading the subscript() operator.

Unit IV

Base class access control –using protected members- Constructors, destructors and inheritance - multiple inheritance- virtual bas classes- Some C++ I/O basics- formatted I/O using width(), precision () and fill() – using I/O manipulators- Creating your own inserters- creating extractors.

Unit V

Creating your own manipulators- File I/O basics- unformatted, binary I/O- more unformatted I/O functions- random access- checking the I/O status- customized I/O and files- Pointers and derived classes- Introduction to virtual functions- more about virtual functions- applying polymorphism- Exception handling.

Text Book(s)

Herbert Schildt, “Teach Your self C++”, III edition, Tata McGraw Hill 5th Reprint 2000.

Reference(s)

1. Robert Lafore, “Object Oriented Programming in Turbo C++”, Galgotia 2001
2. E. Balagurusamy “Object Oriented Programming with C++ “, TMH New Delhi