

**PAPER – III – OBJECT ORIENTED PROGRAMMING**

**UNIT – I**

What is Object Oriented Programming? – C++ Console I/O – C++ commands – Classes : Some differences between C and C++ - Introducing Function Overloading – Constructor and Destructor Functions – Constructors that 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 – The this pointer – Using new & delete – More about new & delete – More about new & delete – reference – Passing reference 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 overloaded 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 look at the assignment operator – overloading the subscript ( ) operator.

**UNIT – IV**

Base class access control – using protected members – constructors, destructors and inheritance – multiple inheritance – virtual base 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 Books:**

Herbert Schildt “Teach Yourself C++” Third Edition, Tata McGraw Hill, 5<sup>th</sup> Reprint 2000.

**Reference Book:**

Robert Lafore, “Object Oriented Programming in Turbo C++”, Galgotia.