SEMESTER- III

COURSE CODE :- C 5
COURSE TITLE :- PROGRAMMING IN C++
CREDIT :- 4

Marks distribution

Full Marks: 15 (MSE) + 60 (ESE) = 75 Duration: 3 hrs Pass Marks: 34

This paper consists of 50 marks and divided into two groups:

Group-A: Objective questions (Compulsory)	:	1 x 10 = 10
Group-B: descriptive questions (5 out of 8 questions)	:	10 x 5 = 50

Total =		60

The questions must cover the entire syllabus with equal distribution of marks as far as practicable.

Module 1: OOPS**:** Concepts of OOPS and differences with procedural languages, characteristics of OOPS (Idea of objects, class, data abstraction & encapsulation, inheritance, polymorphism, dynamic binding, I/0 stream, Cin, Cout, I/O manipulation).

Module2: Data Types, operators, Control structure & looping statements, Functions and arrays.

Module 3: Objects & classes: classes and objects, constructor, destructor

Module 4: Operators overloading**:** unary operator (++, --,-) binary operators using member function and friend function

Module 5: Inheritance: Derived class and base class, protected access specifier, derived class constructors, class hierarchies, abstract base class, public and private inheritance, Multiple inheritance, containership (classes within classes).

Module 6: Pointers: Address and pointers, pointers and arrays, memory management. "New" & "delete" pointer to objects, pointer to pointer and "this" pointer

Module 7: Functions: Virtual functions, Friend functions, static functions.

Module 8: Files and streams: String, string I/O, object I/O, I/O with multiple objects file pointer

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Books Recommended:

I. C++ -Lafore
2. C++ -Balaguruswamy
3. C ++ -Kanetkar

PRACTICAL: Programmining in C++

Programming Using C++ based on functions, constructor, destructor, operator overloading, inheritance, polymorphism, Pointer