

Branch: BCA	Semester-IV
Subject Code: 4202	Practical: 02 Credit: 02
Subject Title	OBJECT ORIENTED PROGRAMMING C++ LAB

Modules	Sr. No.	Topic and Details	No of Lectures/Practicals Assigned	Marks Weight age %
UNIT-I	1	Introduction: Simple Programs on fundamental Data Types and I/O operators, Derived data types, Symbolic constants, variables and Reference variables	2	4
	2	Operators and decision control structures: Programs to implement If statements, Switch statements, Loop statements, Functions in c++: Main function, function proto type, Call by reference, return by reference, Inline functions, Default arguments, Const Arguments, Function overloading,	2	4
UNIT-II	3	Classes and Object, Programs for memory allocation for objects, Arrays of objects, Objects as function Arguments, Friend functions, Returning objects, Const Member functions, Pointers to members	2	4
	4	Constructors and Destructors: Implementation of Constructors (Parameterized Constructors, Multiple constructors in a class, Constructors with default arguments, Copy constructors, Dynamic constructors) Destructors.	2	4
UNIT-III	5	Programs for Operator Overloading (Unary, Binary, Using friend functions etc.)	3	6
	6	Inheritance ,Pointers virtual functions and polymorphism: Programs for Inheritance Single, Multiple, Multilevel, Hierarchical inheritance, Hybrid inheritance, Virtual base class, Abstract class, Constructors in derived classes, Nesting of classes	3	6
UNIT-IV	7	Programs for Managing Console I/O OPERATIONS and Working with files: C++ Stream and Classes, Unformatted I/O operations, Put(), get(), getline(), write(), Formatted console I/O operations, Ios class functions and flags, Manipulators, User defined output functions	3	6
	8	File Handling: Implementation of Opening and closing files, Detecting End of file, File modes, File pointers and their manipulations, Sequential input and output operations, Reading and writing class object, Command line arguments	2	4

	9	Templates: Implementations of Class template, Class template with multiple parameters, Function template.	4	8
	10	Exception Handling: implementations of try, catch and throw statement for handling the exceptions.	2	4
		Total	25	50

Text Book:

1. K.R Venugopal 'Mastering C++', Tata Mcgrawhill, 1997

References:

1. B.Stroustrup 'C++ Programming Language' (3rd Edition). Addison Wesley, 1997
2. B.chandra Narosa 'A Treatise On Object Oriented programming using C++'- Publications, 1998
3. Herbert Schildt, "The Complete Reference CN", Tata McGraw-Hili, 2001