

Code: 20CS3302, 20IT3303

**II B.Tech - I Semester – Regular / Supplementary Examinations
DECEMBER 2023**

**OBJECT ORIENTED PROGRAMMING THROUGH C++
(Common for CSE, IT)**

Duration: 3 hours

Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.
2. All parts of Question must be answered in one place.

BL – Blooms Level

CO – Course Outcome

			BL	CO	Max. Marks
UNIT-I					
1	a)	Summarize the key concepts of OOP along with its advantages.	L2	CO1	7 M
	b)	Explain the predefined classes of I/O streams with suitable examples.	L2	CO1	7 M
OR					
2	a)	Demonstrate function overloading by using the function findmax(x1, x2).	L2	CO3	7 M
	b)	Develop a calculator application using functions.	L3	CO3	7 M
UNIT-II					
3	a)	Outline the C++ access modifiers and their scope in different functions.	L2	CO2	7 M

	b)	Assume that class Distance takes two members i.e. feet and inches. Create a Distance object that should decrement the value of feet and inches by 1 using unary operator overloading.	L3	CO2	7 M
OR					
4	a)	Illustrate the friend function in C++ with an example.	L2	CO2	7 M
	b)	Demonstrate binary operator overloading by performing the addition of two complex numbers.	L3	CO2	7 M
UNIT-III					
5	a)	Illustrate different types of inheritance with an example.	L2	CO2	7 M
	b)	Illustrate the virtual function with an example.	L3	CO2	7 M
OR					
6	a)	Differentiate various types of pointers like void pointer, wild pointer and this pointer.	L2	CO2	7 M
	b)	Illustrate pointer increment and decrement with examples.	L3	CO2	7 M
UNIT-IV					
7	a)	Illustrate file operations using stream classes.	L2	CO4	7 M
	b)	Develop a C++ program to merge contents of two files.	L2	CO4	7 M

OR					
8	a)	Explain the principles of exception handling.	L2	CO4	7 M
	b)	Demonstrate re-throwing of an exception in C++ with an example.	L2	CO4	7 M
UNIT-V					
9	a)	Illustrate different types of templates with example programs.	L2	CO4	7 M
	b)	Demonstrate Class Template with more parameters.	L2	CO4	7 M
OR					
10	a)	Summarize the functions of STL containers map, list, and vector.	L2	CO4	7 M
	b)	Demonstrate iterators to insert, delete, and access a particular element in a vector.	L2	CO4	7 M