

# CBCS SCHEME



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BCS306B

## Third Semester B.E./B.Tech. Degree Examination, Dec.2023/Jan.2024 Object Oriented Programming With C++

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.  
2. M : Marks , L: Bloom's level , C: Course outcomes.*

Module – 1			M	L	C
Q.1	a.	List and explain the principles of object oriented programming.	6	L2	CO1
	b.	Define Class. Write the general syntax of class. Explain with an example program.	6	L2	CO1
	c.	Describe friend function with an example program.	8	L2	CO2
<b>OR</b>					
Q.2	a.	What is constructor? Explain parameterized constructor with example.	6	L2	CO2
	b.	Write a short note on : (i) Scope Resolution operator. (ii) Returning objects	6	L2	CO2
	c.	Explain Inline functions with suitable example.	8	L2	CO2
<b>Module – 2</b>					
Q.3	a.	Explain arrays of objects to pointers with example program.	10	L2	CO2
	b.	Explain : (i) this pointer (ii) Dynamic Allocation operators.	10	L2	CO2
<b>OR</b>					
Q.4	a.	What is function overloading? Explain function overloading for the following prototype: (i) add(int a, int b) (ii) add (double a, double b)	10	L3	CO3
	b.	Explain copy constructor with suitable example program.	10	L2	CO3
<b>Module – 3</b>					
Q.5	a.	Explain operator overloading using a friend function.	10	L3	CO3
	b.	Discuss the role of access specifiers in inheritance with example.	10	L2	CO4
<b>OR</b>					
Q.6	a.	Explain how and where the constructors are used in inheritance with example.	10	L3	CO4
	b.	Define virtual class. Explain how it is used in multiple inheritance with an example program.	10	L2	CO4
<b>Module – 4</b>					
Q.7	a.	What is virtual function? Demonstrate virtual function with an example program.	10	L3	CO4
	b.	Explain : (i) Early binding V/s Late binding (ii) Pure virtual functions.	10	L2	CO4
<b>OR</b>					
Q.8	a.	What are generic functions? Explain the generic function that swap 2 variables with which it is called?	10	L3	CO5
	b.	Write a note on : (i) Generic classes (ii) Type name and export.	10	L2	CO5

