



VIT
Vellore Institute of Technology
Deemed to be University under section 3 of U.G. Act, 1956

School of Computer Science and Engineering

Winter Semester 2023-24

Continuous Assessment Test – 1

G2 + TG2 SLOT

Programme Name & Branch: B.Tech Business System

Course Name & code: Object Oriented Programming and CBS1002

Class Number (s): VL2023240503578, VL2023240503576

Faculty Name (s): Dr.J. SAIRA BANU, RENITA R

Exam Duration: 90 Min.

Maximum Marks: 50

Q.No.	Question	Max Marks
1.	a) Compare and Contrast the procedural and object oriented programming languages. [6] b) When will you use inline function? why? [2] c) What is the usage of default arguments in the function? [2]	10
2.	Justify the following with an example code snippet: a) Can a Constructor be overloaded? b) Automatic type conversion from type x to type y. c) How Abstraction is employed in object oriented programming. d) Usage of setw() and setprecision() predefined functions. e) Usage of Scope resolution operator.	10
3.	Explain the following C++ features. You may use a short fragment of code to complement your explanation. (a) The declaration of a C++ class illustrating constructor, variable, and method (b) The use of a destructor (c) Methods of Function definition (d) Function Overloading (e) Access Specifiers	10
4.	Create a Class called 'time' that has data members such as hours, minutes and seconds. one constructor should initialize these data to zero and another should initialize it to fixed format. Another member function should add two time objects using overload '+' and another should subtract two time objects using overloaded '-' operator. Write a C++ program to perform the above operations and	10

	display the output in neat format.	
5.	a) What are the two ways to implement the type conversion from one class type to another. [4] b) Define two classes Polar and Rectangle to represent points in the polar and rectangle systems. Use conversion routines to convert from one system to the other. [Hint: $x=r\cos(\Theta)$, $y=r\sin(\Theta)$] [6]	10