

Programme Name & Branch : B.Tech CSE and Business Systems
Course Code and Course Name : CBS1002 Object Oriented Programming
Faculty Name(s) : Prof Priya G and Prof Sathyaraj R
Class Number(s) : VL2024250505143 & VL2024250505144
Date of Examination : 31.01.2025
Exam Duration : 90 minutes

Maximum Marks: 50

General instruction(s): Answer All Questions

Course Outcomes

CO1: Realize the need and features of OOP and idealize how C++ differs from C.
 CO2: Infer knowledge on various types of overloading.

Q. No	Question	M	CO	BL
1.	a) Elucidate the significance of access specifiers in C++. Discuss the role of access specifiers in encapsulation.	5	1	1
	b) State the need of default arguments and elucidate with an example.	5		
2.	Create a class called BankAccount with the following members Private data members: accountNumber (int), accountHolderName (string), balance (float). Public member functions: - A constructor that initializes the accountNumber, accountHolderName and balance. - deposit(float amount): Adds the given amount to the balance. - withdraw(float amount): Subtracts the given amount from the balance if sufficient balance is available, else displays an error message. - displayAccountDetails(): Displays the account details. Create an object for BankAccount and perform the following operations deposit, withdraw and display details.	10	1	2
3.	a) Write the output of the following and justify your answer <pre>#include <iostream> #include <iomanip> using namespace std; int main() { double pi = 3.14159265358979; int num = 123; cout << fixed << setprecision(4) << pi << endl; cout << setw(10) << num << endl; cout << setfill('*') << setw(10) << num << endl; return 0; }</pre>	5	1	1
	b) Elucidate explicit type conversion with an example.	5		
4.	Create a class Books with the following data members bookID, bookTitle, and author. Initialize all the data members with the values passed as arguments and Initialize a new object as a copy of an existing object using constructors. Discuss the code in detail.	10	2	2
5.	Write a C++ program that defines a class Point to represent x and y coordinates of the point. The class should overload the unary - operator to negate the coordinates of a point and the binary - operator to subtract two points.	10	2	2