


<b>Name:</b> <b>Enrolment No:</b>			
<b>UPES</b> <b>End Semester Examination, December 2023</b> <b>Course: Object Oriented Programming</b> <b>Semester: I</b> <b>Program: B.Tech – ADE, Civil, ECE, EL, FSE, ME, SE, ASE, APE, CHE</b> <b>Time: 03 hrs.</b> <b>Course Code: CSEG1008</b> <span style="float: right;"><b>Max. Marks: 100</b></span> <b>Instructions: Attempt any one question wherever internal choice is provided.</b>			
<b>SECTION A</b> <b>(5Qx4M=20Marks)</b>			
S. No.		Marks	CO
Q 1	Elucidate the difference between C and C++.	4	CO1
Q 2	Any integer is input through the keyboard. Write a program to find out whether it is an odd number or even number. Or What is the purpose of namespace std in C++?	4	CO1
Q 3	Write a program to demonstrate static variable.	4	CO2
Q 4	Generate all prime numbers between 1 and n, where n is a value supplied by the user.	4	CO1
Q 5	Write a program to perform product of two matrices. Or What are C++ access modifiers?	4	CO3
<b>SECTION B</b> <b>(4Qx10M= 40 Marks)</b>			
Q 6	Can you give an example of why operator overloading can lead to cleaner and more concise code? Or Write a program to copy the contents of one array into another in the reverse order.	10	CO3
Q 7	Why is inheritance required? Explain different types of inheritance with example. Or Write a program to search for an element in the array.	10	CO3

Q 8	Write a program to count all the words in a string	10	CO2
Q 9	Write a program to convert a decimal number to its binary representation using loops. Take the decimal number as input and display its binary equivalent.	10	CO2
<b>SECTION-C</b> <b>(2Qx20M=40 Marks)</b>			
Q 10	Design a class representing a bank account. Ensure that the account balance is private and provide methods to deposit and withdraw money, displaying the current balance. Or Design a class representing a Sports Team class that contains information such as the team's name, the number of players, and the coach's name. The displayTeamDetails() method is used to output these details for a football team. Add a method to update information about the team.	20	CO4
Q 11	Create a health tracker program with functions to input and display information about a person's daily steps, calorie intake, and water consumption. Implement a function to assess the user's overall health based on these inputs and provide feedback.	20	CO4