APRIL 2026 **53502/120C2A/141C2A**

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. Define “Encapsulation”.

2. What is need for object-orientation?

3. Write a note on constructor.

4. Relate the overloading a function in C++.

5. State the use of “new” operator.

6. What is inheritance?

7. Recall the protected access specifier in C++.

8. Comment on function overriding.

9. What is class template?

10. What do you mean by Standard Template Library (STL)?

11. Give the example of overloading <<and>> operators.

12. Show the use of random access I/O.

PART B — (5 × 5 = 25 marks)

Answer any FIVE questions.

13. Describe the data members and member functions in C++.

14. Enumerate the general form of a class declaration and how to create objects for a class.

15. Write a C++ program to calculate the sum of digits of a given n number.

16. Identify the declaration of pure virtual function with example.

17. Elaborate the implementation of function templates with multiple parameters.

18. Highlight the opening and closing a file in C++ program.

19. Discover the use of unformatted and binary I/O.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

20. Illustrate the friend functions and friend classes in C++.

21. Discuss the overloading an operator as a member function.

22. Compare and construct the multiple and multilevel inheritance.

23. Estimate the use of try and catch statement in exception handling.

24. Demonstrate the formatted I/O with ios class functions.

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