# K25U 1386

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Reg. No. : .....

Name : .....

## Second Semester B.C.A. Degree (C.B.C.S.S. – O.B.E. – Supplementary/ Improvement) Examination, April 2025 (2019 to 2023 Admissions) Core Course 2B03BCA : OBJECT ORIENTED PROGRAMMING USING C++

Time : 3 Hours

Max. Marks: 40

PART - A

#### (Short Answer)

Answer all questions. Each question carries 1 mark.

- 1. List various logical operators in C++.
- 2. What do you mean by symbolic constants in C++?
- 3. \_\_\_\_\_ operator dynamically deallocates memory in C++.
- 4. Write syntax used to define a destructor in C++.
- 5. Name a statement in C++ that is used to skip current iteration and continue with next iterations.
- 6. C++ provides the \_\_\_\_\_ data type to handle true and false values.

## PART – B

## (Short Essay)

Answer any 6 questions. Each question carries 2 marks.

7. Write the syntax of else if ladder statement in C++.

- 8. Explain concept of function overloading in C++.
- 9. Write a note on dynamic memory allocation in C++.
- 10. Write C++ program to implement single level inheritance.
- 11. Mention features of dynamic constructor in C++.
- 12. Write need of abstract classes in C++.
- 13. What is a pure virtual function in C++ ?
- 14. Write about various file modes in C++.

 $(6 \times 2 = 12)$ 

 $(6 \times 1 = 6)$ 

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### PART – C (Essay)

Answer any 4 questions. Each question carries 3 marks.

- 15. Briefly explain C++ looping statements.
- 16. Write a note on array of objects in C++.
- 17. Compare protected and public member variables in C++.
- 18. Short note on constructors in C++ with an example.
- 19. Write a short note on virtual functions in C++.
- 20. Short note on multi-level inheritance in C++

#### PART – D (Long Essay)

Answer any 2 questions. Each question carries 5 marks.

- 21. Explain various concepts of Object-Oriented Programming.
- 22. Explain concepts of object and class in C++. Write a C++ program to add two complex numbers using object and class.
- 23. Describe overloading binary operators with a suitable example.
- 24. Explain various C++ stream classes.

(4×3=12)

 $(2 \times 5 = 10)$