(6 pages) Reg. No. : ....

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B.C.A. (CBCS) DEGREE EXAMINATION,
APRIL 2024.

Second Semester

Computer Application – Core

OBJECT ORIENTED PROGRAMMING CONCEPTS
USING C++

(For those who joined in July 2023 onwards)

Time : Three hours   Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. Which streams are used for console input and output in C++?

    (a) sin and sout
    (b) cin and cout
    (c) input and output
    (d) read and write

2. C++ is a —————— language.

    (a) procedural
    (b) assembly
    (c) modular
    (d) object oriented

3. —————— is the process of using the same name for two or more functions.

    (a) Function overloading
    (b) Operator overloading
    (c) Default function
    (d) Constructor

4. Destructor has the same name as the constructor and it is preceded by ——————.

    (a) !   (b) ??
    (c) –   (d) $~

5. The class that acquires the properties of parent class is called —————— class.

    (a) base   (b) inherited
    (c) public   (d) derived

6. Which of the following is not a type of inheritance?

    (a) Multiple   (b) Multilevel
    (c) Distributive (d) Hierarchical

7. How many types of polymorphisms are supported by C++?

    (a) 1   (b) 2
    (c) 5   (d) 4

8. How "Late Binding" is implemented in C++?
   (a) Using C++ tables
   (b) Using Virtual tables
   (c) Using Indexed virtual tables
   (d) Using polymorphic tables

9. The code ifstream fin, would be used when
   (a) creating a file
   (b) appending a file
   (c) reading a file
   (d) removing a file

10. In C++ which library is used for file handling?
    (a) iostream   (b) stdlib
    (c) fstream   (d) string

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) State the following control structure with example.
    (i) For.. Statement
    (ii) Write a C++ program to print the number is odd or even using class and object.

Or

(b) Illustrate the use of Inline Functions with example.

12. (a) What are the important characteristics of static member variable?

Or

(b) Differentiate static data member and static member functions.

13. (a) List out the rules for overloading operators.

Or

(b) Elaborate on overload the binary operators.

14. (a) State the use of new and delete operators.

Or

(b) Give some basic rules for virtual functions.

15. (a) Justify the working mechanism of Exception Handling.

Or

(b) Explain the standard Template Library and how it is working?

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words..

16. (a) Illustrate the syntax and flow diagram of Entry and Exit loop with example program.

Or

(b) Give a brief explanation on function overloading with example.

17. (a) Give a brief note on Friend Function.

Or

(b) Classify the different types of constructor.

18. (a) Explain the Inheritance and its type in C++ with suitable example program.

Or

(b) Illustrate the overloading friend functions with example.

19. (a) Write a C++ program for student mark statement using pure virtual function.

Or

(b) Elaborate on Polymorphism and its type.

20. (a) Examine the file stream operations ifstream(), fstream() and ofstream().

Or

(b) Describe the significance of file modes in C++ file operations.

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