

END TERM EXAMINATION

THIRD SEMESTER [BCA] DECEMBER 2024-JANUARY 2025

Paper Code: BCA-205

Subject: Object Oriented Programming
with C++

(BATCH 2021 ONWARDS)

Time: 3 Hours

Maximum Marks: 60

Note: Attempt five questions in all including Q. No.1 which is compulsory. Select one question from each unit.

- Q1 Write short notes on the following (Any Five):- (4x5=20)
- (a) C++ Stream classes
 - (b) Explain inline function
 - (c) What is virtual function?
 - (d) Differentiate between Call by value and call by reference.
 - (e) Explain Aggregation.
 - (f) What is Abstract Class?
 - (g) Differentiate between early binding and late binding.
 - (h) Give an example of Template function.

UNIT-I

- Q2 (a) Differentiate between Procedural programming and Object oriented programming. (5)
- (b) Explain the use of new and delete operators using an example. (5)

OR

- Q3 (a) What are the features of Object-oriented Programming? (5)
- (b) Differentiate between C and C++. (5)

UNIT-II

- Q4 (a) What is the friend function? Write a C++ program to illustrate the use of the friend function. (5)
- (b) What is a constructor? Explain various types of constructors. Write a C++ program to illustrate the use of the default constructor, parametric constructor, and copy constructor. (5)

OR

- Q5 (a) Define operators overloading. Write a C++ program to overload '+' operators to concatenate two string and two complex numbers. (5)
- (b) Explain the Access Specifiers in C++ and also give the suitable example. (5)

UNIT-III

- Q6 (a) What are the different forms of inheritance supported by C++? Explain with examples. (5)
- (b) Explain the different forms of polymorphism in C++ with the help of example. (5)

OR

- Q7 (a) What is the Unary Operator Overloading? Write a C++ program to implement it. (6.5)
- (b) What is Pure Virtual function? Explain with suitable example. (6)

UNIT-IV

- Q8 (a) Explain the difference between exception and error. Write a program containing a possible exception. Use a try block to throw it and a catch block to handle it property. (5)
- (b) What are command line arguments in a file? Write a program to explain how to read text and to display its contents on the screen. (5)

OR

- Q9 (a) What is a template? Write a template for adding two numbers of different data types. (5)
- (b) What is generic programming? How it is implemented in C++? (5)

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