

Sem. - 3

Seat No. : 15873

DC-102

December-2022

B.C.A., Sem.-III

CC-203 : Object Oriented Concepts and Programming

Time : 2½ Hours]

[Max. Marks : 70

1. Write the following :

- (1) What is Arrow Operator ? Explain with example. 7
- (2) How to define the function outside the class body ? Explain with example. 7

OR

- (1) Write a short note on Default Arguments in C++. 7
- (2) Write a short note on Function Overloading in C++. 7

2. Write the following :

- (1) Explain dynamic memory allocation and de-allocation in C++ with example. 7
- (2) What is Constructor ? Explain the characteristics of it in detail. 7

OR

- (1) Explain Friend Member Function with example. 7
- (2) Explain Nested Classes in brief. 7

3. Write the following :

- (1) Explain virtual destructor with example. 7
- (2) Explain the multiple inheritance with example. 7

OR

- (1) Differentiate the Compile-time Polymorphism and Run-time Polymorphism. 7
- (2) What is virtual base class ? Explain with example. 7

4. Write the following :

- (1) Explain the type conversion of class to class with example. 7
- (2) Explain text mode input using get() function and getline() function with example. 7

OR

- (1) How to concatenate two string by overloading binary '+' operator ? Explain in brief. 7
- (2) Explain the class template with multiple parameters using example. 7

5. Answer the following : (any seven)

14

- (1) POP is stands for _____.
 - (a) Procedure Oriented Programming
 - (b) Procedure Object-oriented Programming
- (2) A destructor can take any number of arguments. (True/False)
- (3) Templates are used for generic programming. (True/False)
- (4) Function overriding is used to achieve runtime polymorphism. (True/False)
- (5) A copy constructor can take _____ argument(s).
 - (a) one
 - (b) two
 - (c) zero
 - (d) any no. of
- (6) A class specifically used as a base class with atleast one pure virtual functions is called an abstract class. (True/False)
- (7) If a function contains a loop, it can never be inline function. (True/False)
- (8) What is Inheritance in C++ ?
 - (a) Deriving a new class from existing class.
 - (b) Wrapping of data into a single class.
- (9) By default, all the files in C++ are opened in _____ mode.
 - (a) binary
 - (b) text
- (10) Operator overloading is a/an _____ polymorphism.
 - (a) compile time
 - (b) run time
- (11) Which of the following is correct syntax, if we want to create a reference variable of an existing integer variable ?
 - (a) `int x=5; int y=&x;`
 - (b) `int x=5; int &y=x;`
 - (c) `int x=5; int &y=&x;`
 - (d) `int x=5; int y=&&x;`
- (12) The conditional (?:) operator cannot be overloaded. (True/False)