III Semester B.C.A. Examination, April/May 2021
(F + R) (CBCS) (Y2K14 Scheme)
COMPUTER SCIENCE
BCA 303 : Object Oriented Programming Using C++

Time : 3 Hours   Max. Marks : 70

Instruction : *Answer **all** Sections.*

SECTION – A

I. Answer **any ten** questions. **Each** question carries **two** marks.   (10×2=20)

1) What is data abstraction ?

2) Define polymorphism and name two types of polymorphism.

3) What are manipulators ? Give two examples of manipulators.

4) What is default arguments to functions ?

5) Write two differences between constructor and destructors.

6) Which operators cannot be overloaded in C++ ?

7) Define abstract class.

8) What is the purpose of 'this' operator ?

9) Define template. Name two types of templates.

10) Differentiate between seekg() and seekp() function.

11) What is function prototype ?

12) Define static data members use in a class.

SECTION – B

II. Answer **any five** questions. **Each** question carries **10** marks.   (5×10=50)

13) a) Explain in detail basic concept of object oriented programming.   5

   b) Write a note on control structures of C++.   5

14) a) Differentiate between call by value and call by reference arguments.   5

   b) Explain Inline function with a program to calculate area and
      circumference of circle.   5

15) a) Explain friend function with an example.   4

    b) Write a C++ program to add two complex numbers by overloading '+' operator.   6

16) a) Write a C++ program to overload a unary minus operator.   5

    b) Explain multiple inheritance and ambiguity resolution in it.   5

17) a) Define virtual function with an example.   5

    b) Explain unformatted I/O operations.   5

18) a) Explain difference between function overloading and overriding.   5

    b) Explain type conversion of basic to class and class to basic type.   5

19) a) What is exception ? Explain different blocks of exception handling.   5

    b) Explain function template with an example.   5

20) a) Explain file pointer and file opening modes.   5

    b) Write a note on stream classes.   5