



QP – 456

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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**

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- 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



SECTION - B

Answer any five questions. Each question carries 10 marks.

(a) Explain in detail the basic concept of object oriented programming.

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

(c) Differentiate between call by value and call by reference arguments.

(d) Explain inline function with a program in suitable area and comment it.