

III Semester B.C.A. Degree Examination, November/December 2018  
(F+R) (CBCS) (2015 – 16 and Onwards)

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. (10×2=20)

- 1) Mention any four differences between C and C++.
- 2) What are objects and how they are created ?
- 3) Mention the uses of scope resolution operator.
- 4) Define constructor.
- 5) Write the syntax of operator function.
- 6) Mention the memory allocation operators in C++.
- 7) List the operators which cannot be overloaded.
- 8) Define inheritance.
- 9) Differentiate between function overloading and overriding.
- 10) Define stream.
- 11) What are templates ?
- 12) Give the general syntax of cin and cout statements.



## SECTION – B

II. Answer **any five** questions.

(5×10=50)

- 13) a) Explain any five basic concepts of Object Oriented Programming (OOP). 5  
 b) What is an inline function ? Write an inline function to find absolute value of a number. 5
- 14) a) Briefly explain function with default arguments. 5  
 b) What is a friend function ? Explain with suitable example. 5
- 15) a) Give the general form of a class and illustrate access specifiers. 5  
 b) Define constructor. Explain any three different types of constructors. 5
- 16) a) Define polymorphism. Discuss different types of polymorphism. 5  
 b) Write a C++ program to add two complex numbers by overloading '+' operator. 5
- 17) Explain different types of inheritance with suitable examples. 10
- 18) a) Define pure virtual function. Give an example. 4  
 b) What is exception handling ? Explain the different blocks in exception handling. 6
- 19) a) Explain function template with its general form. 4  
 b) Write a function template to sort a set of elements. 6
- 20) Write a short note for the following :  
 a) Input and output streams. 3  
 b) fstream class. 3  
 c) File opening modes. 4