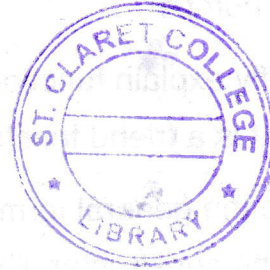III Semester B.C.A. Degree Examination, November/December 2018
(F+R) (CBCS) (2015 – 16 and Onwards)
**COMPUTER SCIENCE**
**BCA – 303 : Object Oriented Programming using C++**

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.

P.T.O.

## 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