## LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600034

## B.C.A. DEGREE EXAMINATION - COMPUTER APPLICATIONS THIRD SEMESTER - NOVEMBER 2016

## CA 3502 - OBJECT ORIENTED PROGRAMMING WITH C++

Date: 04-11-2016
Dept. No. $\square$ Max. : 100 Marks
Time: 09:00-12:00

## PART - A

Answer ALL Questions
( $10 \times 2=20$ marks)

1. List any two features of object oriented programming.
2. Define Inline functions.
3. What is a copy constructor?
4. How is a member function of the class defined?
5. What are the types of Polymorphism?
6. Which operators cannot be overloaded?
7. What is an istream class?
8. List the stream class names for file operations.
9. What is a Class Template?
10. Define Exception.

## PART - B

## Answer ALL Questions

11. a) Discuss about Function Overloading with an example.
(or)
b) Explain any two categories of operators with examples.
12. a) Explain how to create a class and declare objects with a simple program.
(or)
b) Discuss about Destructors with an example.
13. a) Write notes on (i) Abstract Class (ii) Virtual Base Class.
(or)
b) Explain overloading of a unary and a binary operator with an example.
14. a) Discuss about file pointers and their manipulators.
(or)
b) Write notes on (i) get() (ii) put() (iii) getline() (iv) write().
15. a) Discuss about Function Templates with an example.
(or)
b) Discuss about the basic steps involved in exception handling mechanisms and rethrowing an exception.

## PART - C

Answer Any TWO Questions
16. a) Discuss about the various control structures available in $\mathrm{C}++$ with examples.
b) What is a Constructor? Explain its types with examples.
17. a) What is inheritance? Explain any two types of inheritance with suitable examples.
b) Write a C++ program to write text data to a file and print the contents of the file in lower case letters. Explain the file functions used.
18. a) Explain how exceptions are handled using try..catch statements in C++.
b) Explain the following: (i) Friend Function (ii) Any 5 basic OOP concepts.
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