



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

**B.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE & COMPUTER APP.**

**THIRD SEMESTER – NOVEMBER 2014**

**CS 3504/CA 3504 - DATA STRUCTURE USING C++**

Date : 31/10/2014

Dept. No.

Max. : 100 Marks

Time : 09:00-12:00

**PART-A**

**Answer ALL the questions:**

**(10 x 2 =20)**

1. List any four benefits of OOPS?
2. What are tokens in C++?
3. Define Constructors?
4. Define Polymorphism?
5. Give the use of EOF?
6. List C++ stream classes?
7. What is Queue?
8. What is Linked List?
9. What is searching? List some of the searching techniques?
10. What is sequential search?

**PART-B**

**Answer ALL the questions**

**(5 x 8 =40)**

11. (a) Define class and object? Write a C++ program to find the factorial of the given number using recursion by implementing classes and objects?  
(Or)  
(b). Demonstrate the use of Friend Function with an example program?
12. (a) Explain Unary Operator Overloading with an example program?  
(Or)  
(b). Explain the use of parameterized constructor with an example program?
13. (a) Explain in detail about Formatted Console I/O operation?  
(Or)  
(b) Write about various File Modes with necessary examples?
14. (a) Explain various operation on Stacks?  
(Or)  
(b) Explain about inserting and deleting elements in a queue?
15. (a) Explain Quick Sort with an example?  
(Or)  
(b). Explain about Insertion Sort with an example?

**PART- C**

**Answer any TWO questions:**

**(2 x 20 =40)**

16. (a) Explain various control structures in C++?  
(b) What is Inheritance? Explain various types of Inheritance in C++?
17. (a) Explain in detail about various operation on files with relevant example?  
(b) Explain in detail about singly linked list.
18. (a) Discuss in detail about Binary Search?  
(b) Write a brief note on Exceptional Handling in C++?

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