



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION - COMPUTER SCI. & APP.

THIRD SEMESTER – NOVEMBER 2015

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

Date : 04/11/2015

Dept. No.

Max. : 100 Marks

Time : 09:00-12:00

PART - A

ANSWER ALL THE QUESTIONS:

(10 x 2 = 20 marks)

1. Define procedure-oriented programming.
2. What is inline function?
3. What is the use of a copy constructor?
4. Define Inheritance.
5. What is the use of precision function?
6. What are the different file mode parameters?
7. Define stack.
8. What are the fields that are present in the doubly linked list?
9. Define quicksort.
10. List out the asymptotic complexity of the insertion sort and merge sort.

PART - B

ANSWER ALL THE QUESTIONS:

(5 x 8 = 40 marks)

11. a) Explain function overloading with an example.
(Or)
b) What is a friend function? What are the merits and demerits of using friend functions?
12. a) What are the special characteristics of the constructor functions?
(Or)
b) What are the rules for overloading operators?
13. a) Explain stream classes for console operations.
(Or)
b) Describe the functions that are used in file stream classes.
14. a) Explain the push and pop functions of the stack with a program.
(Or)
b) Explain in detail about inserting and deleting elements in a queue with an example.
15. a) Describe sequential search with an example.
(Or)
b) Explain insertion sort with an example.

PART-C

ANSWER ANY TWO QUESTIONS:

(2 x 20 = 40 marks)

16. a) Explain in detail about function prototyping and call by reference with an example.

b) What is virtual function? Explain the rules for virtual functions.

17. a) Discuss in detail about error handling functions.

b) Explain the concept of doubly linked list with an example.

18. a) Briefly explain merging two sorted lists.

b) Explain in detail about polymorphism.

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