

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



B.Sc & B.C.A. DEGREE EXAMINATION – COMPUTER SCIENCE & APPLICATIONS

THIRD SEMESTER – APRIL 2018

CS/CA 3504– DATA STRUCTURE USING C++

Date: 05-05-2018
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

Part – A

Answer all Questions

(10 x 2 = 20)

1. What are the features of Object oriented programming.
2. Define friend function.
3. Give the various types of constructors.
4. How the objects are initialized dynamically?
5. List the types of header files.
6. What is the need for streams in C++?
7. Give the push operation algorithm.
8. What is doubly linked list?
9. Define: Sorting.
10. What are the uses of searching algorithms?

Part – B

Answer all Questions

(5 x 8 = 40)

11. (a) Explain the classes and objects with an example.

(OR)

- (b) Write a C++ program to explain return by reference.

12. (a) Explain the copy constructors with an example?

(OR)

- (b) Explain about multiple Inheritance.

13. (a) Discuss about the stream classes in C++ with example. \

(OR)

- (b) Explain the process of open, read, write and close files?

14. (a) Explain the about Queue operations with example.

(OR)

(b) Discuss the insertion algorithm for a singly linked list.

15. (a) Write and explain the algorithm for sequential search.

(OR)

(b) Explain the merge sort algorithm with example.

Part – C

Answer any TWO Questions

(2 x 20 = 40)

16. (a) Explain the basic concepts of Object oriented programming

(b) Explain briefly about function overloading with a suitable example.

17. (a) Explain about Formatted and Unformatted IO with suitable Example.

(b) Discuss about the insertion, deletion of doubly linked list with example.

18. (a) Write and explain the algorithm for quick sort with example.

(b) Explain the different types of polymorphism.
