



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

THIRD SEMESTER – APRIL 2019

CS/CA 3504– DATA STRUCTURE USING C++

Date: 24-04-2019
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

PART - A (10*2=20)

Answer all questions:

1. Write any four features of OOPS.
2. Distinguish between methods and messages.
3. List the different types of constructor.
4. What is pointer of pointer? Give Example.
5. What are the stream classes in C++?
6. Define File modes?
7. What are the different ways to implement list?
8. Give the applications of stack
9. What is the main idea in Bubble sort?
10. State the process of linear techniques.

PART- B (5*8=40)

Answer all the questions:

- 11.(a) Highlight the features of object-oriented programming language.

(OR)

- (b) Explain about Call by Value and Call by Reference with an example program.

- 12.(a). What do you mean by parameterized constructor and explicit constructor? Explain with suitable example.

(OR)

- (b). What is virtual function? When do we make a virtual function “pure”?

- 13.(a) Describe Exception handling in detail?

(OR)

- (b). Give the format and use of the following File Handling operations in C++: fopen, fread, fwrite and fseek.

- 14.(a) Explain about Queue ADT in detail. Explain any one application of queue with suitable example.

(OR)

- (b). Explain the operations performed by the linked list with an example.

- 15.(a). Write a C++ program to implement binary search?

(OR)

- (b) Write an algorithm and procedure to implement quick sort?

Part-C (2 * 20 = 40)

Answer any TWO Question:

16. (a). Explain function overloading with example.

(b). Write brief notes on Friend function and show how to modify a Class's private Data with a Friend Function.

17.(a) Explain operator overloading with a suitable program.

(b). Illustrate the concept of polymorphism with example.

18.(a). Explain the algorithm of merge sort with example.

(b). Write a C++ program to implement linear search.
