



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

THIRD SEMESTER – APRIL 2017

CA / CS 3504-DATA STRUCTURE USING C++

Date: 02-05-2017
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

SECTION- A

ANSWER ALL THE QUESTIONS:

(10 X 2 = 20)

1. What is a comment in a C++ program?
2. What is the purpose of cin Object?
3. What is virtual function?
4. Define constructor. Give an Example.
5. Define c++ streams classes.
6. What are the different file modes?
7. What are the operations that are performed in a linked list?
8. Distinguish stack from queue.
9. What is sorting?
10. Define searching.

SECTION - B

ANSWER ALL THE QUESTIONS:

(5 X 8 = 40)

11. (a) Explain function overloading with an example.

(OR)

- (b) Explain the basic concepts of OOPs.

12. (a) Describe parameterized constructors with an example.

(OR)

- (b) Write a C++ program to implement virtual function..

13. (a) List the formatted output manipulator.

(OR)

- (b) Write a C++ program to read content from the file and write the content in to the file.

14. (a) Explain about the operations on stack with an example.

(OR)

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

15. (a) Write a C++ program to implement merge sort.

(OR)

- (b) Write a C++ Program to implement bubble sort.

SECTION-C

ANSWER ANY TWO QUESTIONS:

(2 X 20 = 40)

16. (a) Write a C++ program to read the information like name, roll number, mark1, mark2, mark3. Write member function to create, modify, and delete the student information.

(b) Define inheritance. Explain in detail about hybrid inheritance.

17.(a) Explain the exception handling mechanism of C++ in detail

(b) Describe the procedure used to perform addition and deletion of an element in single linked list.

18. (a) Explain Quick sort algorithm with example

(b) Explain the advantages of Object Oriented Programming over Structured programming.
