LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc., B.C.A. DEGREE EXAMINATION – **COMPUTER SCIENCE. & COMPUTER APP.**

THIRD SEMESTER – **APRIL 2016**

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

Date: 02-05-2016   Dept. No.   Max. : 100 Marks
Time: 09:00-12:00

PART – A (10 * 2=20)

Answer all Questions:

1. List down the applications of OOP.
2. What is a scope resolution operator and how can it be used for global variable?
3. List the advantages of operator overloading.
4. What is inheritance? What are its advantages?
5. Define ifstream & fstream.
6. What are the tasks to be performed by error handling code?
7. Difference between Arrays and Linked List?
8. Define stack. Mention the operations on stack.
9. What is sorting?
10. What is binary search?

PART – B (5 * 8=40)

Answer all Questions:

11. (a) Compare and contrast Structured Programming and Object Oriented Programming.

(OR)

(b) Explain the concepts of function in C++ with example.

12. (a) Explain about the types of constructors with examples.

(OR)

(b) What is inheritance? List its types and Explain with example.

13. (a) Explain the types of console I/O operations with example.

(OR)

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

14. (a) Write a C ++ program to implement Stack and its operations PUSH and POP.

(OR)

(b) Explain the operations performed on queue in detail. Write a C++ program to implement these queue operations.

15. (a) Explain binary search with C++ program.

(OR)

(b) Explain quick sort algorithm with example.

Part – C (2 *20=40)

Answer any TWO Questions:

16. (a) Explain the control structures of C++ with suitable examples.

    (b) Discuss about multiple constructors with example.

17. (a) What are file modes? Describe the various file mode options available in C++.

    (b) Discuss about the linked list and its types with example.

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

    (b) Write a C++ program to illustrate call by-reference and return by-reference.

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