LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.C.A. DEGREE EXAMINATION – **COMPUTER APPLICATIONS**

FIRST SEMESTER – NOVEMBER 2017

17/16PCA1MC02 - OBJECT ORIENTED PROGRAMMING THROUGH C++

Date: 04-11-2017 Dept. No. Max. : 100 Marks

Time: 01:00-04:00

PART – A

Answer all Questions: **10 x 2 = 20**

1. Differentiate object oriented programming and procedure oriented programming.
2. What are preprocessor directives? List them.
3. Define function. Mention the basic elements of function
4. Define pointer. State the use of 'this' pointer.
5. What are abstract classes?
6. Mention the operators that cannot be overloaded.
7. What is a file? Mention its basic operations.
8. What is exception? List its types.
9. What are generic functions? Write the general form of template function.
10. State the uses of the keywords, typename and export.

PART – B

Answer all Questions: **5 x 8 = 40**

11. a. Write short notes on the basic concepts of C++.

(OR)

b. Explain the iteration statements with example.

12.a. "Pointers can be implemented in arrays". Explain with an example.

(OR)

b. Write a C++ program using friend function. Mention its features.

13.a. What is inheritance? Explain its types.

(OR)

b. Write notes on memory management functions.

14.a. Illustrate different ways of opening a file with example.

(OR)

b. Write short notes on

i. ios class functions

ii. manipulators.

15.a. Illustrate the general process of swapping two values using generic functions.

(OR)

b. " Stack class can be used to store objects of any type". Illustrate with an example.

PART-C

Answer any TWO Questions: **2 X 20 = 40**

16.a. Explain the various types of operators with an example for each

b. Explain the following:

i. Features of constructors.(3 marks)

ii. Types of constructors (7 marks)

17.a. Explain the following:

i. unary operator overloading

ii. virtual function.

b. Write short notes on the following

i. exception handling mechanism (7 marks)

ii. terminate(), unexpected(), uncaught_exception().(3 marks)

18.a. Explain with an example generic array compaction function.

b. Illustrate the following

i. storage class specifiers.

ii. expression statements.

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