



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

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

FIRST SEMESTER – NOVEMBER 2016

**16PCA1MC02 - OBJECT ORIENTED PROGRAMMING THROUGH C++**

Date: 04-11-2016  
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

**PART – A**

**Answer all Questions:**

**10 x 2 = 20**

1. Differentiate procedure oriented and object oriented language.
2. Define constant. List its types.
3. What is recursion? Give example.
4. Mention the features of constructors.
5. Define polymorphism. Mention its types.
6. What are pure virtual functions?
7. What are exceptions? Write the general form of try and catch.
8. Define stream. List the file stream classes.
9. What are generic classes ? Write the general form of generic class declaration.
10. Mention few GUI libraries.

**PART – B**

**Answer all Questions:**

**5 x 8 = 40**

- 11.a. Write short notes on storage class specifiers.  
(OR)  
b. Explain the various types of operators used in C++ with examples.
- 12.a. Explain the selection statements with examples.  
(OR)  
b. Illustrate the pointers to objects with an example.
13. a. What is inheritance? Explain the types of inheritance.  
(OR)  
b. What is operator overloading? Explain unary operator overloading with an example.
- 14.a. What are file pointers? Explain the functions for manipulations of file pointers.  
(OR)  
b. Write short notes on
  - i. exception handling mechanism ( 5 marks)
  - ii. catch all exceptions ( 3 marks)
- 15.a. Illustrate the explicit overloading of generic functions.  
(OR)  
b. Explain how stack can be used to store objects of any type.

## PART-C

Answer any TWO Questions:

2 X 20 = 40

16.a. Explain in detail about the preprocessor directives.

b. Illustrate the following with example

i. friend function.

ii. array of objects.

17.a. Write short note on the following:

i. ambiguity in multiple inheritance.

ii. virtual functions.

b. Explain the following

i. throwing an exception from a function outside try block.

ii. localizing try block to a function.

18.a. Illustrate compacting an array with an example.

b. Explain the categories of function with example.

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