## LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600 034

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

### FIRST SEMESTER - NOVEMBER 2019

## 16/17/18PCA1MCO2 - OBJECT ORIENTED PROGRAMMING THROUGH C++

Date: 30-10-2019 Dept. No. Max. : 100 Marks

Time: 09:00-12:00

#### PART - A

#### **Answer all Questions:**

 $10 \times 2 = 20$ 

- 1. What are the data types used in C++?
- 2. Mention the basic concepts of OOPs.
- 3. What is a pointer? State the use of & and \* operator.
- 4. Mention the features of friend function.
- 5. State the use of new and delete operators.
- 6. Define polymorphism. Mention its types.
- 7. What are command line arguments?
- 8. What are the basic tasks of error handling?
- 9. What are generic functions? Write the general form of template function definition.
- 10. Mention few GUI libraries.

#### PART - B

#### **Answer all Questions:**

 $5 \times 8 = 40$ 

11.a. Write short notes on storage class specifiers.

(OR)

- b. Explain the types of expression statements used in C++ with examples.
- 12.a. Explain the categories of functions with example for each.

(OR)

- b. Illustrate the pointers to arrays with an example.
- 13.a. What is operator overloading? Explain unary operator overloading with an example.

(OR)

- b. llustrate virtual function with an example.
- 14.a. Explain the different methods of opening file with an example.

(OR)

- b. Explain exception handling mechanism with an example.
- 15.a. Illustrate the general process of swapping two values using generic functions.

(OR)

b. Explain how stack can be used to store objects of any type.

## **PART-C**

# **Answer any TWO Questions:**

 $2 \times 20 = 40$ 

- 16.a. Explain the following with an example
  - i. any two selection statements.
  - ii. any two iteration statements.
  - b. Explain in detail about the operators used in C++.
- 17.a. "Ambiguity in multiple inheritance"-Explain with an example.
  - b. Explain the following
    - i. Throwing an exception from a function outside try block.
    - ii. Localizing try block to a function.
- .18.a. Illustrate the compacting of array using generic functions with an example.
  - b. Explain the types of constructors with an example.

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