## LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600034

B.Sc.DEGREE EXAMINATION -COMPUTER SCIENCE

THIRD SEMESTER - APRIL 2018

## 16UCS3MC02- OBJECT ORIENTED PROGRAMMING USING C

Date: 07-05-2018
Dept. No. $\square$ Max. : 100 Marks
Time: 09:00-12:00

## PART - A

## Answer All Questions:

1. What are the categories of operators?
2. What are Inline functions?
3. What is the purpose of scope resolution operator?
4. What is a static data member and static member function?
5. List the rules for operator overloading.
6. What is a Copy Constructor?
7. What is 'this' pointer?
8. What is Polymorphism? What are its types?
9. What is a Function Template?
10. List the modes of a file.

## PART - B

Answer All Questions:
11.a) Explain the looping structures available in C++.
(or)
b) How are functions created and used in $\mathrm{C}+$ +?
12.a) Explain Friend functions with an example.
(or)
b) Discuss about Function Overloading with an example.
13.a) Discuss about Constructors and its types.
b) Explain about Destructors with an example.
14.a) What is a pointer? Explain how pointers are used to access objects.

## (or)

b) How Polymorphism achieved using Virtual Functions?
15.a) Discuss about Class Templates with an example
(or)
b) Discuss about the file stream classes.

## PART - C

## Answer Any Two Questions:

16.a) Discuss about Object Oriented Programming Concepts.
b) Write a program to create an array of student objects with the following fields: Regno, Name, Course, Percentage and display them. Explain the concept of objects and classes.
17.a) What is Operator Overloading? Explain how to overload a '+' operator to add two objects.
b) Discuss about the types of inheritance with suitable examples.
18.a) Discuss about the Exception handling mechanism in $\mathrm{C}++$.
b) Discuss about unformatted I/O operations.

