LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc.DEGREE EXAMINATION –**COMPUTER SCIENCE**

THIRD SEMESTER – **NOVEMBER 2018**

17/16UCS3MC02– OBJECT ORIENTED PROGRAMMING USING C++

Date: 31-10-2018   Dept. No.   Max. : 100 Marks
Time: 01:00-04:00

Section – A

Answer**ALL** the Questions   **(10 * 2 = 20 Marks)**

1) State any four differences between Procedure Oriented Programming and Object oriented programming.

2) What are the memory management operators?

3) What do you mean by friend function?

4) What is constant member function?

5) Define Parameterized constructor.

6) What is called destructor?

7) Define Hierarchical Inheritance.

8) What do you mean by Pure Virtual function?

9) What is called an Exception?

10) What is the method used for detecting the End-of-File?

Section – B

Answer any**FIVE**questions   **(5 * 8 = 40 Marks)**

11) i) Discuss the benefits of Object oriented programming

(OR)

ii) Explain in detail about the different methods of passing parameters in function.

12) i) Write the steps to be followed for Function overloading.

(OR)

ii) What is static variable? Explain its characteristics.

13) i) What do you mean by Constructor? Also explain the characteristics of Constructor.

(OR)

ii) Define Operator overloading. Explain the steps involved in the process of overloading.

14). i) Write short notes: i) Single & Multiple Inheritance   ii) Hybrid Inheritance.

(OR)

ii) What is called Virtual function? State the rules for virtual functions

15) i) Discuss the functions used to manipulate with file pointers.

(OR)

ii) Explain the functions used for formatting console I/O operations.

Section - C

Answer any **TWO** questions   **(2 * 20 = 40 Marks)**

16) i) Discuss in detail about the concepts of Object oriented Programming.   (10 Marks)

 ii) Write a C++ program to find Sum of Digits until you get a single digit of a given number. (10 Marks)

17)i) Define a class "Car" and it include the following members:

       1. Car name

       2. Brand Name

       3. Model No

       4. Speed Limit

       5. No of litres

       6. No of Kms travelled

       6. Road Tax

       7. Cost of the car

Member functions:

i) Assign initial values   ii) Calculate the mileage   iii) Calculate the total cost of specified car. (12 Marks)

ii) Explain Inline function with an example.   (8 Marks)

18) i) Define Copy Constructor. How will you use the copy constructor to initialize an object in C++?

(13 marks)

ii) Write a C++ program to throw Negative Mark Exception if the user inputs negative mark.(7 Marks)

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