LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

THIRD SEMESTER – **NOVEMBER 2019**

16/17/18UCS3MC02 – OBJECT ORIENTED PROGRAMMING USING C++

Date: 31-10-2019   Dept. No.   Max. : 100 Marks
Time: 01:00-04:00

PART-A

ANSWER ALL THE QUESTIONS   (10 X 2 =20)

1. Define the 'Object Oriented paradigm'.
2. Give an example for default argument.
3. Write down the syntax for friend function.
4. Define a class.
5. What is dynamic constructor?
6. List any two operators that cannot be overload.
7. Write a short note on 'this pointer'.
8. What do you meant by run time polymorphism?
9. List the various modes of opening a file.
10. How will you clear the runtime errors in C++?

PART-B

ANSWER ALL THE QUESTIONS   (5 X 8 =40)

11. a) Briefly explain about conditional statements.

    (OR)

    b) Distinguish call by reference and call by value with examples.

12. a) Write a C++ program to sort the given set of numbers by defining a function outside of the class

    (OR)

    b) Write a C++ program for static member functions.

13. a) Discuss in detail about destructors with an example.

    (OR)

    b) Explain about type conversions with examples.

14. a) What is virtual base class? Explain in detail.

    (OR)

    b) Explain about pointers to objects with example.

15. a) Describe about different stream classes.

    (OR)

    b) Explain about various file pointers with examples.

PART-C

ANSWER ANY TWO QUESTIONS   **(2 X 20 =40)**

16. a) Briefly explain the following

    i) concept of OOP   ii) Applications of OOP

    b) Write a C++ program to calculate area of circle, rectangle and scalene triangle ($s(s-a(s-b)(s-c)$, where $s=(a+b+c)/2$) by overloading a function 'Area( )'.

17. a) Describe the different types of constructors with examples.

    b) Discuss in detail about different types inheritance with examples.

18. a) Explain templates with suitable examples.

    b). Write a C++ program to overload '+' operator.

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