# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FIRST SEMESTER – **APRIL 2016**

**CS 1505 – PROGRAMMING IN C**

Date: 02-05-2016    Dept. No.    Max. : 100 Marks
Time: 01:00-04:00

## Part A

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

1. Define Algorithm.

2. Differentiate between Constants and Variables.

3. Differentiate Break and Continue.

4. Define Array. Give the syntax for declaring a multidimensional array.

5. Give examples for reading and writing strings.

6. Define Pointers.

7. Explain any two Library functions.

8. Give the uses of User defined functions.

9. Give the difference between Structures and Unions.

10. Define Command Line Arguments.


## Part B

**Answer ALL the Questions**                                      **(5 * 8 = 40)**

11. Write an Algorithm and Draw a flowchart to calculate Simple Interest.
                              (or)
    Define Data type. Discuss about the data types in C with examples.

12. With an example explain the difference between while and do while loop.
                              (or)
    Explain Initialization and Processing of a Two dimensional Array with an example.

13. What are the only operations that can be carried out on Pointers?

                              (or)
    Write short notes on Array of Pointers.

14.  Define Recursion. Write a program to calculate factorial using recursion.

                              (or)
     What are Storage Classes? Explain its types.

15. Explain Declaring and Initializing structures within structures.
                              (or)
    Write short notes on Unions and Enumerated data types.

**Part C**

16. (a) Write short notes on Operators and Expressions in C with examples.

    (b) Explain with examples if else, switch case and for loop.

17. (a) Discuss about any five string functions.

    (b) Write a C code that finds the sum of the elements in an array by passing the array to a function that does the addition and returns the sum.

18. (a) With a Program explain Pointers within structures.

    (b) Discuss about the File types and file handling functions.

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