LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FIRST SEMESTER – **APRIL 2013**

CS 1501/CA 1501/CS 1500 – PROGRAMMING IN C

Date: 09/05/2013   Dept. No.   Max. : 100 Marks
Time: 1:00 - 4:00

PART –A

Answer ALL questions: **(10 x 2 = 20 Marks)**

1. Define constant. Give an example.

2. List out the rules of defining identifier.

3. What is the purpose of looping statements? What are the various looping statements available in C?

4. What do you mean by function prototype?

5. Which storage class allows the value of the variable to be retained even if the control goes out of the defining function? Give an example.

6. Define recursive function.

7. Define Union.

8. How are multidimensional arrays defined?

9. How are the fscanf and fprintf functions used in data files?

10. Which operator is used to find the address of a variable?

PART - B

Answer ALL questions: **(5 x 8 = 40 Marks)**

11. a) Classify the Operators in C and explain the various unary operators.
                         (OR)
    b) Explain the features of C language.

12. a) Write down the differences between the "break" and "continue" statement.
                         (OR)
    b) Compare the while and do-while looping constructs with examples.

13. a) Compare the scope of various storage classes available in C.
                         (OR)
    b) Explain the differences between passing arguments by value and passing by reference.

14. a) Explain any four string functions available in string.h
                         (OR)
    b) Compare unions and structures.

15. a) Compare fscanf and fprintf functions with the scanf and printf functions.
                         (OR)
    b) Write a C program to sort n numbers.

PART –C

16. Explain all the forms of "if" statement with their syntax, flowchart and example
    program segment.

17. a) Write a program to perform matrix multiplication.

    b) Explain structures in detail with an example.

18. a) Explain file creation process in C with an example.

    b) Write a C program using pointers to swap values.

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