LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FIRSTSEMESTER – APRIL 2017

CS 1503 - PROGRAMMING IN C

Date: 26-04-2017 Dept. No. Max. : 100 Marks
Time: 09:00-12:00

PART - A

ANSWER ALL QUESTIONS: (10x2=20 Marks)

1. What are the characteristics of computers?
2. Enlist the advantage of algorithm
3. What is the difference between while loop and do ..while loop?
4. What are the main elements of an array declaration?
5. Give an example of initialization of string array.
6. What is Recursion? Give an example.
7. State the Significance of Pointers?
8. Give the comparison between union and structure
9. What is dynamic memory allocation? List down the built in functions for dynamic memory allocation
10. What is meant by Preprocessor Directives? List down its uses.

PART - B

ANSWER ALL QUESTIONS: (5x8=40 Marks)

11. a. (i) Draw a flow chart to find factorial of a number
    (ii)Draw a flow chart to find sum of first 100 natural numbers

    (or)

    b. Discuss in detail about various operators in C with suitable examples.
12. a. Explain about the various decision making statements in "C" language.

    (or)

    b. Write a C program using Two dimensional array for multiplication of Two matrices.
13. a. What is a function? Explain in details about call by value and call by reference with suitable example

    (or)

    b. Explain in details about various string handling functions with suitable example.
14. a. What is a structure? Explain in detail about nested structure with suitable examples.

    (or)

    b. (i) Explain about Pointer Declaration with suitable examples
    (ii) Explain the use of pointers in arrays with suitable example.
15. a. Explain in detail about various file handling functions with suitable examples

    (or)

    b. Explain in detail about preprocessor directives with examples

PART – C

ANSWER ANY TWO QUESTIONS: **(2x20=40 Marks)**

16. a. Explain in detail about various steps involved for solving the problem in computer programming

    b. Explain about different looping statements with suitable example

17. a. (i) Write a C program to find the fibanacci series using recursion

    (ii) Write a C program to check whether the given number is palindrome or not

    b. Explain passing pointers and returning pointers with an example

18. a. Explain in detail about dynamic memory allocation with suitable examples.

    b. Write a C program to solve the Quadratic equation.

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