



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

**B.Sc., DEGREE EXAMINATION – COMPUTER SCI. & COMPUTER APP.**

**FIRST SEMESTER – NOVEMBER 2013**

**CS 1503/CA 1503 – PROGRAMMING IN C**

Date : 12/11/2013  
Time : 1:00 - 4:00

Dept. No.

Max. : 100 Marks

**PART-A**

Answer **ALL** the questions:

( 10 x 2 = 20 )

1. Define variable.
2. Write a note on assignment operators.
3. What are arrays?
4. What are the limitations of using getchar functions in C?
5. What is function prototype?
6. Define recursion.
7. What is a bit fields?
8. What is array of structures?
9. Write a note on the function calloc.
10. What are the categories of directives?

**PART-B**

Answer **ALL** the questions:

( 5 x 8 = 40 )

11. a) Describe the basic structure of a C program.  
(OR)  
b) Explain briefly about the characteristics and purpose of escape sequences.
12. a) Differentiate between do-while and while statements.  
(OR)  
b) Explain in detail about the dynamic arrays.
13. a) Distinguish between the actual and formal parameter.  
(OR)  
b) Explain functions returning pointers with an example.
14. a) How do you represent structure? Explain it with an example.  
(OR)  
b) Explain array within structures with an example.
15. a) Discuss about random access files with an example.  
(OR)  
b) Explain briefly about the command-line arguments.

**PART-C**

Answer any **TWO** questions:

(2 x 20 = 40 )

16. a) Explain control statements in C with an example.  
b) Write a program to find out the largest and smallest element in an array.
17. a) What are functions in C? Explain any two categories of functions with an example.  
b) Write a program to sort an array of strings in ascending order using pointers.
18. a) Describe briefly about the compiler control directives.  
b) Explain about macro substitution in C.

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