LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE

FIRST SEMESTER – November 2009

CS 1503/CA 1503 - PROGRAMMING IN C

Date & Time: 10/11/2009 / 1:00 - 4:00   Dept. No.   Max. : 100 Marks

PART – A

Answer ALL the questions   **(10 x 2 = 20 marks)**

1. Define variable.
2. Write a note on bitwise operators.
3. What are arrays?
4. What are the limitations of using getchar functions in C?
5. What is function definition?
6. Define recursion.
7. What is a bit fields?
8. How to declare a register variables in C?
9. What are the categories of directives?
10. Differentiate between the fseek function and ftell function.

PART – B

Answer ALL the questions   **(5 x 8 = 40 marks)**

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 various string handling functions.

13. a) Distinguish between the actual and formal parameter.

(OR)

b) Explain the following storage classes in C (i) Extern   (ii) Static

14. a) How do you represent structure? Explain it with an example.

(OR)

b) What is the use of typedef and enum?

15. a) Discuss about pointers in C and its advantages.

(OR)

b) Explain briefly about the command-line arguments.

PART – C

16. a) Explain conditional statements in C with an example.

    b) Explain the data types in C language.

17. a) What are functions in C? Explain the types of functions with an example.

    b) Write a program to sort an array of strings in ascending order.

18. a) Describe briefly about the input/ output operations on files.

    b) A book shop uses a personal computer to maintain the inventory of books that are being sold at the shop. The list includes details such as author, title, price, publisher, stock position, etc. Whenever a customer wants a book, the shop keeper inputs the title and author of the book and the system replies whether it is in the list or not. If it is not, an appropriate message is displayed. If book is in the list, then the system displays the book details and asks for number of copies. If the requested copies are available. The total cost of the books is displayed, otherwise the message "Required copies not in stock" is displayed. (**Uses a template to define the structure of the book**).

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