LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.C.A. DEGREE EXAMINATION –COMPUTER APPLICATIONS

FIRST SEMESTER – **APRIL 2018**

CA 1501– PROGRAMMING IN C AND DATA STRUCTURES

Date: 26-04-2018   Dept. No.   Max. : 100 Marks
Time: 09:00-12:00

SECTION A

ANSWER ALL THE QUESTIONS   **10 X 2=20 MARKS**

1. Define variable in C language.
2. List the rules for creating an indentifier in C.
3. State the need for getchar and putchar function.
4. What is looping ?
5. Define recursion.
6. What is function prototype?
7. What is a union?
8. What is a pointer?
9. What is a data file?
10. State the different modes of operation in a file.

SECTION B

ANSWER ALL THE QUESTIONS   **5 X8=40 MARKS**

11. a. Draw a flow chart to check the given number is odd or even.
                OR
    b. Write a note on conditional operators in C language with an example.
12. a. Give the difference between While and do-while loop with example.
                OR
    b. Write a note on printf function with different control strings and its significance.

13. a. Write a C program to perform matrix addition.
            OR
    b. How will you pass arguments to function? Give an example to call by value.
14. a. What are union? Give an example.
                OR
    b. With an example explain passing pointer to a function.
15. a. How will you open and close a data files in C?
            OR
    b. What is unformatted data file? Give an example.

SECTION C

ANSWER ANY TWO QUESTIONS   **2 X20=40 MARKS**

16. a. Explain control structures in detail.
    b. Explain data types in C.
17. a. Explain storage classes.
    b. Write a program to print the factorial of number using recursion.
18. a. Explain structures data type in C with example.
    b. How will you pass an array to a function? Give an example.
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