D1BMC2301 (S1)   Reg. No..............................

                                                      Name: ....

FIRST SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2024

(Improvement/Supplementary)

COMPUTER SCIENCE & MATHEMATICS (DOUBLE MAIN)

GDCS1B01T: COMPUTER FUNDAMENTALS & PROGRAMMING USING C

Time: 2 Hours   **Maximum: 60 Marks**

SECTION A: Answer the following questions. Each carries *two* marks.
(Ceiling 20 marks)

1. List out the categories of user defined functions.
2. Differentiate fgets() and fputs() function.
3. What is an Address operator?
4. Differentiate between union and structure.
5. What are the invalid codes of BCD?
6. Why NAND and NOR gates are called Universal gates?
7. What are the symbols used in a flowchart?
8. Write the syntax for opening a file.
9. Give two examples for low level programming language.
10. What is one dimensional array? Give an example.
11. What will be the hexa decimal equivalent of decimal number $(4579)_{10}$?
12. Give an account on initialization of array.

SECTION B: Answer the following questions. Each carries *five* marks.
(Ceiling 30 marks)

13. Write a C program to find the sum and average of n integer numbers.
14. How to access array elements with pointer? Explain with example.
15. Discuss the working of D flip-flop with figure.
16. Explain any five Boolean laws with example.
17. Write an algorithm to check whether the given number is even or odd.
18. What are actual parameters and formal parameters? Illustrate with example.
19. Explain 1's and 2's complement of binary with example?

SECTION C: Answer any *one* question.

20. What is Token? What are the different types of token available in C language?
21. What is string? How string is declared and initialized? Explain any four string manipulation functions with examples.

                                                      (1 x 10 = 10 Marks)