

D1BMC2201

Reg.No.....

Name:

FIRST SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2022
COMPUTER SCIENCE & MATHEMATICS (DOUBLE MAIN)
GDCS1B01T: COMPUTER FUNDAMENTALS & PROGRAMMING USING C

Time: 2 Hours

Maximum Marks: 60

SECTION A: Answer the following questions. Each carries 2 marks.
(Ceiling 20 Marks)

1. What is gray code? Give example.
2. Convert each binary number to decimal a) 110001 b) 1110 . 01
3. What are universal gates?
4. Differentiate between latch and flipflop.
5. Explain the different types of constants in C.
6. Explain conditional operator in C.
7. What is union in C?
8. What is an array? How can we declare an array?
9. Draw the flowchart of *simple if* control.
10. What is the concept of global variable in C?
11. What is the purpose of *scanf()* and *printf()* function?
12. What is the purpose of *strlen()* and *strcmp()*

SECTION B: Answer the following questions. Each carries 5 marks.
(Ceiling 30 Marks)

13. Describe the octal number system. Explain the rules for converting octal to binary and vice versa.
14. With circuit diagram explain RS flip flop.
15. What is an operator? Explain the use of increment and decrement operator in C.
16. Write a C program to find the factorial of a number using recursion.
17. Write a C program to add two matrices.
18. What is a pointer? Explain the benefits of using pointer.
19. How can you read and write from a file? Explain with examples.

SECTION C: Answer any 1 question. Each carries 10 marks.

20. Define branching. Explain various branching and looping statements available in C with example?
21. Explain different parameter passing techniques with example

(1 × 10 = 10 Marks)