# C 23852

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Name.....

Reg. No.....

### SECOND SEMESTER (CBCSS—UG) DEGREE EXAMINATION APRIL 2022

**Computer Science** 

### BCS 2B 02—PROBLEM SOLVING USING C

(2019-2020 Admissions)

Time : Two Hours

#### Maximum : 60 Marks

#### Section A (Short Answer Type Questions)

Answer **all** questions, each correct answer carries a maximum of 2 marks. Ceiling 20 marks.

- 1. What is a pointer ?
- 2. What are the functions to write to a text file ?
- 3. What are integer literals?
- 4. What is dynamic memory allocation?
- 5. Write down the syntax of for loop.
- 6. With an example, illustrate the use of ternary operator.
- 7. What is the purpose of continue statement?
- 8. How does a structure differ from an array?
- 9. What is the use of #define statement?
- 10. What do you mean by base address of an array ? What is the starting base address ?
- 11. Explain assignment operators in C.
- 12. What is the importance of the file opening mode "w+"?

(20 marks)

#### Section B (Short Essay Type Questions)

Answer all questions, each correct answer carries a maximum of 5 marks. Ceiling 30 marks.

- 13. Explain with an example, how will you access union members.
- 14. Using recursion, write a program to find factorial of a number.

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- 15. Differentiate the use of local variables and global variables with example programs.
- 16. Explain with an example, how will you pass pointers to functions in C?
- 17. Explain various data types in C.
- 18. Write a C program to find first N Fibonacci numbers.
- 19. Explain the use of break statement with an example.

(30 marks)

#### Section C (Essay Type Questions)

Answer any one question, correct answer carries 10 marks.

- 20. Write a C program to sort N numbers using pointers.
- 21. Write a C program to multiply two matrices.

 $(1 \times 10 = 10 \text{ marks})$