15121

Reg. No.

I Semester B.C.A Degree Examination, March/April- 2023

COMPUTER APPLICATIONS

Problem Solving Techniques Using 'C'

(CBCS Scheme)

Time : 3 Hours **Maximum Marks : 70**

Instructions to candidates:

Answer all Sections.

SECTION - A

I. Answer any TEN questions. **(10×2=20)**

1. Define Flow chart.
2. Why is 'C' called a middle level language ? Justify.
3. Mention the different data types supported in C-language.
4. Write the syntax of conditional operator and give example.
5. Differentiate between break and continue statements.
6. Write the syntax of printf ( ) and scanf ( ) function .
7. Define Array. Mention different types of an array.
8. What is a string? Give an example.
9. What is function prototype? Why is it necessary?
10. What is a pointer? How is a Pointer initialized?
11. What is Malloc ( ) and calloc ( ) ?
12. What are command line arguments?

SECTION -B

II. Answer any FIVE of the following. (5×10=50)

13. a) Explain the structure of a C-program. (5)

    b) Write an algorithm to find the largest of 3 mumbers. (5)

14. a) Explain formatted input - output functions in C. (5)

    b) Explain Arithmetic operators in C with examples. (5)

15. a) Differentiate between while and do-while loops. (5)

    b) Write a program to generate and print first 'N' Fibonacci numbers. (5)

16. a) Explain the four storage classes available in C. (5)

    b) Explain call by value and call by reference with an example. (5)

17. a) Describe various string library functions used in C. (5)

    b) Differentiate between structure and union. (5)

18. Write a program to find the product of two matrices. (10)

19. a) Write a program to find the factorial of a given number. (5)

    b) Write a C-program to find GCD of two numbers using recursive functions. (5)

20. a) Explain different modes of opening a file. (5)

    b) Write a C-program to copy contents of one file to another file. (5)
