

(FOR THE CANDIDATES ADMITTED  
DURING THE ACADEMIC YEAR 2023 ONLY)

23UMS408

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : MAY - 2025

B.Sc. - MATHEMATICS

MAXIMUM MARKS: 75

SEMESTER: IV

TIME : 3 HOURS

**PART - III**  
**PROGRAMMING IN C**

**SECTION – A**

**(10 X 1 = 10 MARKS)**

**ANSWER THE FOLLOWING QUESTIONS.**

**MULTIPLE CHOICE QUESTIONS.**

**(K1)**

1. The task of processing data is accomplished by executing a sequence of instructions called \_\_\_\_\_.  
(a) tokens (b) sequence (c) program (d) syntax
2. Reading a single character can be done by using \_\_\_\_\_.  
(a) getch() (b) putchar() (c) scanf() (d) printf()
3. C supports a derived data type known as \_\_\_\_\_.  
(a) enumerations (b) unions (c) structures (d) array
4. The independently coded programs are called \_\_\_\_\_.  
(a) main program (b) modular program (c) subprograms (d) function
5. Each cell, in the computer memory is commonly known as \_\_\_\_\_.  
(a) byte (b) bit (c) char (d) int

**ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.**

**(K2)**

6. Define variables.
7. Write the statement for 'do statement'.
8. Write a statement to compare two strings.
9. Define function calls.
10. Define declaring pointer variables.

**SECTION – B**

**(5 X 5 = 25 MARKS)**

**ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)**

11. a) Define Keywords and Identifiers.

**(OR)**

b) Explain increment and decrement operators.

12. a) Explain formatted input and formatted output operations.

**(OR)**

b) Write the program for the if else statement.

**(CONTD.....2)**

13. a) Write a program to illustrate a one-dimensional array.

(OR)

- b) Write a short description of declaring and initializing string variables.

14. a) Explain short notes on elements of user-defined functions.

(OR)

- b) Write a program for functions with no arguments and no return values.

15. a) Write a short note on declaring pointer variables.

(OR)

- b) Explain pointers to functions.

### SECTION – C

(5 X 8 = 40 MARKS)

**ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.**

**(K4 (Or) K5)**

16. a) Write a short description of relational operators and logical operators in detail.

(OR)

- b) Explain in detail about the basic structure of the C program.

17. a) Write a short note on decision-making with an if statement.

(OR)

- b) Describe the while statement along with the suitable program.

18. a) Write a program for initializing two-dimensional array.

(OR)

- b) Write short notes on arithmetic operations on characters.

19. a) Explain in detail about the multi-function program.

(OR)

- b) Describe the nesting of functions with a suitable program.

20. a) Write a program for accessing a variable through its pointer.

(OR)

- b) Describe in detail about pointers as function arguments.

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