

(FOR THE CANDIDATES ADMITTED

25UAI101

DURING THE ACADEMIC YEAR 2025

ONLY)

REG.NO. :

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

END-OF-SEMESTER EXAMINATIONS : NOVEMBER-2025

B.Sc. CS with AI &ML(SF)

MAXIMUM MARKS: 75

SEMESTER: I

TIME : 3 HOURS

PART - III

25UAI101 – PROBLEM SOLVING AND PROGRAMMING IN C

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

(K1)

1. Which symbol is used for decision-making in a flowchart?
a) Rectangle b) Diamond c) Oval d) Parallelogram
2. The % operator in C is used for:_____
- a) Division b) Modulus (remainder) c) Percentage calculation d) None of the above
3. Which operator is called the conditional operator in C?
a) ?: b) == c) && d) ||
4. Which of the following is used to define a function in C?
a) int() b) return_type function_name(parameters) { ... }
c) function_name(parameters); d) main() only
5. If int *p, a=10; p=&a;, then *p gives:_____
- a) The address of a b) The value of a c) The address of p d) Error

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES

(K2)

6. Define an algorithm.
7. Define Symbolic Constant.
8. What is the use of else if ladder?
9. Define Recursion.
10. What is the use of fclose() function?

SECTION – B

(5 X 5 = 25 MARKS)

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

11. a) Write an algorithm to find the largest of three numbers. Identify and use appropriate control structures.

(OR)

- b) Analyze the differences between pseudocode and flowcharts.

(CONT...2)

12. a) Write a short note on about arithmetic, relational and logical operators.
(OR)
b) Explain the types conversion.
13. a) Write the syntax of Switch statement and explain with example.
(OR)
b) Write a short note on Arrays.
14. a) Write a short note about nesting of functions.
(OR)
b) Discuss comparison of structure variables.
15. a) What is pointer? How will you declare a pointer?
(OR)
b) Explain Random Access Files.

SECTION – C**(5 X 8 = 40 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K4 (Or) K5)**

16. a) Explain computer hardware and computer software.
(OR)
b) Write the strategies for developing algorithms for recursion function with example.
17. a) Elaborate on data types in C.
(OR)
b) Discuss Formatted Input and Output.
18. a) Analyze the concept of looping statements.
(OR)
b) Explain String handling functions.
19. a) Explain the following: (i)Function Declaration (ii) Function Call.
(OR)
b) Discuss Arrays with Structures.
20. a) Explain the concept of operations in Pointers.
(OR)
b) Analyze the I/O Operation on Files.

Ethical paper