

(FOR THE CANDIDATES ADMITTED

24UAI101

DURING THE ACADEMIC YEAR 2024

ONLY)

REG.NO.

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

END-OF-SEMESTER EXAMINATIONS : NOVEMBER- 2024

B. Sc-CS WITH AI & ML

MAXIMUM MARKS: 75

SEMESTER-I

TIME : 3 HOURS

PART - III**24UAI101 - PROBLEM SOLVING AND PROGRAMMING IN C****SECTION – A****(10 X 1 = 10 MARKS)****ANSWER THE FOLLOWING QUESTIONS. (K1)**

1. Identify which of the following is physical components of a computer_____

- a) Program b) Hardware c) Hard drive d) Software

2. Which data type is used to represent a single character in C?

- a) int b) char c) float d) double

3. Select the correct operator which is used in conditional statement_____

- a) ++ b) : = c) ? : d) **

4. What will be the output of the following code?_____

```
main() {
    static int count=5;
    printf("%d", count--);
    if (count)
        main();
}
```

- a) 5 4 3 2 1 b) 5 5 5 5 5 c) infinite loop d) Compiler Error

5. Pointer arithmetic is not possible on _____

- a) character pointer b) integer pointer c) float pointer d) void pointer

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES**(K2)**

6. Define Algorithm

7. What is the purpose of printf function in C?

8. How to declare an one dimensional array?

9. Define Recursion

10. List down the error handling functions during I/O operations in file

SECTION – B**(5 X 5 = 25 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)**

11. a) Write short note on Computer Language

K1

(OR)

b) Mention the features of C language

K1

(CONT...2)**Ethical paper**

12. a) Explain formatted input and output statement with examples. K2
(OR)
b) Develop a C program to find the area and perimeter of a circle K3
13. a) Differentiate between break and continue K2
(OR)
b) How to read and write a string? Explain with an example K2
14. a) Examine the concept of Nesting of functions in C. K3
(OR)
b) Interpret on Comparison of structure variables with examples. K3
15. a) Analyze how pointers are passing to the function. K3
(OR)
b) Write about opening and closing a file in C K2

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

16. a) Classify the different types of Computer in detail K4
(OR)
b) Outline the Generations of Programming Languages K4
17. a) Examine the following:
i) Relational Operator,
ii) Assignment operator,
iii) Conditional operator and
iv) bitwise operator K4
(OR)
b) Prepare a C program using various mathematical functions. K4
18. a) Explain in detail various looping statements in C K4
(OR)
b) Concept of Arrays in C – Summarize it K5
19. a) Discuss User Defined Functions in C with an example K5
(OR)
b) Explicate Structure and Union in C K4
20. a) Describe the Pointers in C K4
(OR)
b) Elucidate Compiler control directives with an example. K4