

SET-1

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Subject code: 3-1-102-25

SHRI GNANAMBICA DEGREE COLLEGE: MADANAPALLE
(AUTONOMOUS)

Four Year Honors Degree Regular Examination January – 2025

Semester -I

Subject: PROGRAMMING WITH C

Program: B.Sc.(CS)

(Under CBCS New Regulation w.e.f the AY 2025-26)



Duration: 3 Hrs

Max. Marks: 20

PART A

Answer any 4 of the 8. Each Question Carries 5 marks

4×5=20

1. Explain the levels of programming languages with examples.
2. What is an algorithm? Write the characteristics of a good algorithm
3. Write short notes on the switch statement in C.
4. Differentiate between for loop and while loop.
5. Write short notes on two-dimensional arrays in C.
6. Differentiate between character array and string in C.
7. Explain the relationship between pointers and arrays with an example.
8. Differentiate between structures and unions.

PART B

Answer one from each unit. Each question carries 10 marks

5×10=50

UNIT 1

9. Explain the structure of a C program. Write and explain a simple C program to display a message.

OR

10. Discuss data types in C. Explain primary, derived, and user-defined data types with examples.

UNIT 2

11. Explain decision making statements in C. Discuss if, if-else, and else-if ladder with examples.

OR

12. Describe loop control statements in C. Explain while, for, and do-while loops with syntax and examples.

UNIT 3

13. Explain string handling functions with examples.

OR

14. Explain one-dimensional arrays in C. Discuss declaration, initialization, memory representation, and example programs.

UNIT 4

15. Explain pointers and arrays in detail. Write a C program to access array elements using pointers.

OR

16. Explain parameter passing in C. Differentiate between call by value and call by address with examples.

UNIT 5

17. Explain structures and functions. Write a C program to pass a structure to a function.

OR

18. Write a detailed note on working with text files using fprintf(), fscanf(), getc(), and putc() functions with examples.