

CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS

I–B.TECH–I–Semester End Examinations (Regular) - December - 2025

PROGRAMMING FOR PROBLEM SOLVING

(Common for ECE, CSE, CSM & CSD)

[Time: 3 Hours]

[Max. Marks: 60]

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 10 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A

(10 Marks)

1. a) Explain about printf() and scanf() . [2M]
- b) What is actual parameter and formal parameter? [2M]
- c) Difference between gets () and puts (). [2M]
- d) What is recursive function? [2M]
- e) How linear search differentiated from binary search? [2M]

PART-B

(50 Marks)

- 2.a) Explain the structure of C program. [5M]
- b) Differentiate between while and do-while using an example. [5M]

OR

3. What is conditional statement? List Various Conditional Statements used in C. (if, if-else, nested if-else, switch). [10M]
4. Explain in detail about the function without argument and without return type with an example program. [10M]

OR

5. Explain various storage classes in c program. [10M]
6. What is an array? Write a program to implement addition of two matrices using 2D arrays. [10M]

OR

7. What is string? Explain basic string handling functions with an example. [10M]
8. What is Structure? Explain how to access members of structure using C program. [10M]

OR

- 9.a) What is a pointer? How pointer is declared and initialized. [5M]
- b) Differentiate between structure and union. [5M]

10. What is sorting? Explain Bubble sort with an example. [10M]

OR

11. Write an algorithm to implement linear search in an array with example. [10M]
