

INDIRA UNIVERSITY, PUNE

SCHOOL OF INFORMATION TECHNOLOGY- BSC CYS

Backlog Examination (2025 Pattern) April/ May – 2026 - Semester – I

Subject Name: Problem Solving using 'C' Programming
Subject Code: 25CYS102T

Max. Marks: 25
Time: 1:30 Hrs.

Instructions

- All Questions are Compulsory.

CO #	Cognitive Ability	Course Outcome
CO1	Remember	Recall fundamental concepts of problem-solving, algorithms, and C programming syntax.
CO3	Apply	Apply programming skills to write simple and efficient C programs using control structures and functions.
CO4	Analyse	Analyze problems and evaluate appropriate algorithms and control structures to implement solutions.

Q1.	Attempt any 5 out of 7. (1 mark each) a) List down the characteristics of an algorithm. b) What is comment in C Language? c) Write the syntax of do-While statement. d) Give syntax of user defined function. e) List down the ways to initialization of an array. f) Give naming conventions for good programming practices. g) What is the size of the char data type in C?	(5 Marks)	CO1
Q2.	Attempt any 2 out of 4. (5 marks each) a) Write an algorithm and draw flowchart to print sum of digits. b) Differentiate between relational operators and logical operators with suitable examples. c) Write a program to reverse the number. d) Write a program using function to check whether the number is prime or not.	(10 Marks)	CO3

Q.3.	Attempt all questions. (5 marks each) (10 Marks) a) Write a C program to find maximum number from an array of n integers. b) Guess the output of the following with the explanations 1. <pre>#include <stdio.h> int main() { char ch = 'A' + 3; printf("%c", ch); return 0; }</pre> 2. <pre>#include <stdio.h> int main() { int a = 12, b = 25; printf("%d", a ^ b); return 0; }</pre> OR	CO4
Q.3	Write a C program to perform the multiplication of two matrices using functions. The program should include separate functions for: 1. Input of matrices 2. Multiplication of matrices 3. Display of the result Assume the matrices are of the same order (e.g., 3×3). (10 Marks)	CO4
