

INDIRA UNIVERSITY, PUNE

SCHOOL OF INFORMATION TECHNOLOGY- BSC CS

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

Subject Name: Problem Solving using 'C' Programming
Subject Code: 25BSC101T

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) (5 Marks) a) Define Compiler? b) What is Comment in C Language? c) What is the purpose of decision-making statements in C? d) What is Static Storage Class? e) Name any one application of arrays. f) Which symbol is used for Input or Output in a flowchart? g) What does the relational operator == do?	CO1
Q2.	Attempt any 2 out of 4. (5 marks each) (10 Marks) a) Write an Algorithm and Flowchart to check year is Leap Year or not? b) Write a program - 1. To find area and circumference of circle of the given radius . 2. To find simple interest from given principle amount. c) Write a program to find the factorial of a number. d) Differentiate between Call by value and Call by reference with proper example?	CO3
Q.3.	Attempt all questions. (5 marks each) (10 Marks) a) Write a program to accept array by user and check whether number is present in array or not.(Linear search)	CO4

	b) Guess the output of the following with the explanations. 1. <pre>#include <stdio.h> int main() { int x = 7; printf("%d", x << 2); return 0; }</pre> 2. <pre>#include <stdio.h> int main() { double x = 1.2; int y = (int)x + 1; printf("%d", y); return 0; }</pre> OR	
Q.3	Write a C program to perform the addition of two matrices using functions. The program should include separate functions for: 1. Input of matrices 2. Addition of matrices 3. Display of the result (10 Marks)	CO4
