

INDIRA UNIVERSITY, PUNE

SCHOOL OF INFORMATION TECHNOLOGY- BCA

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

Subject Name: Problem Solving using 'C' Programming
Subject Code: 25BCA101T

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

Instructions

- All Questions are Compulsory.

CO #	Cognitive Ability	Course Outcome
CO2	Understand	Explain the principles of structured programming and coding practices.
CO4	Analyze	Analyze problems logically to design step-by-step solutions using algorithms and programs.
CO6	Create	Develop modular, reusable, and efficient programs for real-world applications

Q1.	Attempt any 5 out of 7. (1 mark each) a. Outline any two characteristics of a good algorithm. b. Compare poorly defined and well defined types of Problems in C-Programming with one example. c. Interpret the meaning of constants in a program. d. Explain the purpose of type casting in C. e. Explain the difference between gets() and puts() functions. f. Classify storage classes in C. g. Explain how elements of a one-dimensional array are accessed.	(5 Marks)	CO2
Q2.	Attempt any 2 out of 4. (5 marks each) a. Examine how relational operators are used in c programming. b. Analyze the below code. Predict the output and explain it's working. <pre>#include <stdio.h> int main() { int i = 1; do { printf("%d ", i); i++; } while(i <= 3); return 0; }</pre>	(10 Marks)	CO4

	c. Examine Advantages of Functions. d. Compare one-dimensional and two-dimensional arrays.	
Q.3	Attempt all questions. (5 marks each) (10 Marks) a. Develop an algorithm and corresponding flowchart to find the factorial of a given number N. b. Write a program, which accepts two integers and an operator as a character (+ - * /), performs the corresponding operation and display the result. OR a. Construct a program using function, which accepts a character and integer n as parameter and displays the next n characters. b. Write a program to accept, display and add two matrices.	CO6
