SET-2

INDIRA UNIVERSITY, Pune

SCHOOL OF INFORMATION TECHNOLOGY-SOIT BSC (CS)

Term End Examination (2025 Pattern) December – 2025 - Semester – I

Subject Name: - Problem Solving using 'C' Programming **Max. Marks: 25**
Subject Code: 25BSC101T **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) Give one example of a high-level language. b) What is the difference between = and == in C? c) What is the use of the break statement? d) A Change made in formal arguments can change the value of variable permanently. State True or False. e) Give the definition of a one-dimensional array. f) Give one example of a good programming practice. **g)** What is the purpose of the #include directive**?**	CO1
Q2.	**Attempt any 2 out of 4. (5 marks each) (10 Marks)** a) Draw the Algorithm and Flowchart to print the multiplication of the table. b) Write note on Data Types in C. c) Write a program using a while loop to display the sum of digits of a given number. **d)** Write a program to find Sum of N natural Numbers using recursion.	CO3

Q3.	**Attempt all questions. (5 marks each) (10 Marks)**
	a) Write a program to accept a matrix and display Symmetric matrix.
	
	b) Guess the output of the following with the explanations
	1.
	#include <stdio.h>
	int main() {
	int a = 1, b = 2, c = 3;
	printf("%d", a < b < c);
	return 0;
	}
	2.
	#include <stdio.h>
	int main() {
	int a = 10;
	a <<= 2;
	printf("%d", a);
	return 0;
	}
		CO4

Q.3	**OR** **(Alternative) (10 marks)** Write a program using arrays and appropriate control structures to perform the following operations: 1 Accept the total number of elements . 2. Input n integer values into an array. 3. Calculate and display: 3.1 The sum of all elements. 3.2 The average of the elements.	CO4

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