Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

Mid - Term Examinations – October 2025

Date: 31-10-2025 **Time:** 11:00am – 12:30pm

School: SOCSE/SOE	**Program:** B.Tech	
Course Code :CSE1500	**Course Name:** Computational thinking using python	
Semester: I	**Max Marks**:50	**Weightage**:25%

CO - Levels	**CO1**	**CO2**	**CO3**	**CO4**	**CO5**	**CO6**
Marks	**14**	**14**	**22**	**0**	**0**	**0**

Instructions:

(i) Read all questions carefully and answer accordingly.

(ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks. **5Q x 2M=10M**

1	Define abstraction with its types.	**2 Marks**	**L2**	**CO1**
2	Differentiate reserved words from identifiers with an example for each.	**2 Marks**	**L2**	**CO1**
3	List the various relational operators used in Python	**2 Marks**	**L1**	**CO2**
4	Define an algorithm and write any two desired characteristics of an algorithm.	**2 Marks**	**L2**	**CO2**
5	List any four algorithm design methods.	**2 Marks**	**L1**	**CO3**

Part B

Answer the Questions. **Total Marks 40M**

6.	**a.**	Discuss in detail the four pillars of computational thinking with suitable examples.	**10 Marks**	**L2**	**CO1**
	b.	Draw a flowchart and write a Python program for the given problem: Alice has scored X marks in her test and Bob has scored Y marks in the same test. Alice is happy if she scored at least twice the marks of Bob's score. Given the scores of Alice and Bob, determine whether she is happy or not. Print "yes" if she is happy and "No" otherwise.	**10 Marks**	**L3**	**CO2**
		Or			
7.	**a.**	Define token. Explain any four types of tokens used in python with suitable examples	**10 Marks**	**L2**	**CO1**
	b.	Write a Python program that performs the following tasks: •Read the customer name and meter number. •Read the previous month's reading (old reading) and the current month's reading (new reading). •Calculate the units consumed using: units = new_reading - old_reading •Calculate the monthly bill at the rate of ₹5 per unit if units consumed is less than 100 else ₹10 per unit. Display the customer details, units consumed, and the total bill amount.	**10 Marks**	**L3**	**CO2**

8.	**a.**	Explain the divide and conquer method to solve a given problem with its advantages and disadvantages.	**10 Marks**	**L2**	**CO3**
	b.	Write a Python program to find the sum of the given series 1+3+5+……+27	**10 Marks**	**L3**	**CO3**
		Or			
9.	**a.**	Write the syntax of a for and while loop in Python. Explain with a suitable example for each.	**10 Marks**	**L2**	**CO3**
	b.	Write a Python program to find the sum of the given series 2+4+6+……+30	**10 Marks**	**L3**	**CO3**