Reg. No.:

Name   :

VIT BHOPAL

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TERM END EXAMINATIONS (TEE) – December 2021- January 2022

Programme	: B.Tech.-CSE	Semester	: Fall 2021-22
Course Name	: Introduction to Problem Solving and Programming	Course Code	: CSE1021
Faculty Name	: Divya Thakur	Slot / Class No	: D11+D12+D13/0096
Time	: 1½ hours	Max. Marks	: 50

Answer ALL the Questions

Q. No.			Question Description	Marks

PART - A (30 Marks)

1	(a)		Write the algorithm, pseudocode and draw the flowchart for the following: a. To convert temperature from Fahrenheit to Celsius b. To solve the quadratic equation.	10
			OR	
	(b)		Explain operators and its type with example also define operator precedence in detail.	10
2	(a)		Differentiate between lists, tuples and dictionaries. Give an example for their usage.	10
			OR	
	(b)		Explain the purpose of loop structure in a programming language. Describe the syntax and semantics of any two loop structures provided by Python.	10
3	(a)		Program to multiply two matrices using nested loops.	7
	(b)		To find factorial of a given number	3
			OR	
	(a)		What do you understand by time trade off? Explain with all its type.	5

(b) Explain all the methods for Generating Pseudo-random numbers with syntax and appropriate example.   5

PART - B (20 Marks)

4   What do you understand by function?   10
Write program using function to tell user if he/she is able to vote or not.
(Consider minimum age of voting to be 18.)

5   Write the following python programs.   10
       a. To find whether a given number is Armstrong number or Not.
       b. Finding the K$_{th}$ smallest element in array

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