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

Programme	: B.Tech.– BCY, BHL,BAL,BMR	Semester	: Fall 2021-22
Course Name	: Introduction to Problem Solving and Programming	Course Code	: CSE1021
Faculty Name	: Lokesh Malviya	Slot / Class No	: E11+E12+E13/0086
Time	: 1½ hours	Max. Marks	: 50

Answer ALL the Questions

Q.No.	Question Description	Marks
PART - A (30 Marks)		
1	(a) Explain characteristics of an algorithm. Write an algorithm to find whether a number is prime or not with flowchart. OR (b) What is function? Explain various types of arguments used in function using python program.	10
2	(a) Explain various types of base conversion and write a program to convert decimal number “142” in binary, octal, and hexadecimal OR (b) Define the For loop in python with range function. Write a program to use of For loop with break, continue and pass statements.	10
3	(a) What is prime factor? Write a program to find prime factor with use of function. OR (b) Explain different methods for generation of pseudo random number with python program.	10
PART - B (20 Marks)		
4	Describe the efficiency of algorithms in term Time and Space Complexity with suitable example.	10
5	Write a program for the following array techniques:- 1. To find kth smallest element with output 2. Partitioning an array with output	10

