

Reg. No.:

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Mid-Term Examinations, November 2021

Programme	: B.Tech. [BCE&BAI&BCG&BCY&BHI&BAC]	Semester	: Fall 2021-2022
Course	: Introduction to Problem Solving and Programming	Code	: CSE1021
Faculty	: Dr. L. Shakkeera	Slot/Class No.	: D11+D12+D13 / 0073
Time	: 1½ hours	Max. Marks	: 50

Answer all the Questions

Q. No.	Question Description	Marks
1	Following is a pseudocode to classify numbers as “Single Digit”, “Double Digit” or “Big”. <i>Classify_Numbers_Pseudo</i> INPUT Number IF Number < 9 "Single Digit" Else If Number < 99 "Double Digit" Else "Big" Verify for (5, 9, 47, 99, 100 200) and correct the pseudocode if required.	5
2	Write the algorithm to print all multiples of 5 between 10 and 25 (including both 10 and 25).	5
3	i) Write a code snippets in Python programming for the following: a) Accessing elements from the list b) Add elements to the list c) Delete an element from the list. d) Sort the items in the list e) Count the number of occurrence of an item in the list. ii) Is tuple is mutable or immutable? Justify. Write a Python program for tuples using for() loop, add and remove items.	10
4	i) How operators are important to solve the real world problems, explain the membership operators with an example. ii) Write a Python program for the following using ‘set’: a) Create a set b) Add items to the set c) Update items in the set d) Remove an item from the set e) set() as constructor f) Count the number of occurrence of an item in the set.	10
5	i) Write a Python program to print the Fibonacci sequence using while() loop statement. ii) Write a Python program to check Prime number using for() loop statement with break and continue keywords.	10

6	i) Function is important for any program why? How to call a function in Python? ii) Write a Python function that takes a list and returns a new list with unique elements of the list.	10
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