

SVKM'S NMIMS

MUKESH PATEL SCHOOL OF TECHNOLOGY MANAGEMENT & ENGINEERING

Academic Year: 2023-2024

Program: B.Tech/MBA Tech Stream : Computer/IT/AI/AIML/CSE/CE/CS Year: II/III Semester: V/III

Subject: Python Programming

Time: 3 hrs (10 am- to 1 pm)

Date: 8-12-2023

No. of Pages: 2

Marks: 100

Final Exam (2023-2024)/ Re Exam (2022-2023)

Instructions: The candidate has to create a folder on the Desktop, which will contain a word document containing the answers of the questions with the question number and .py files. The folder name should be "RollNo_Name_PythonNUE". [Please provide instructions as per your requirements]

- 1) All Questions are compulsory.
- 2) Figures in brackets on the right hand side indicate full marks.
- 3) Assume Suitable data if necessary.

Q1		Answer briefly:	
CO-1; SO-1; BL-1	a.	Write a python Program to generate a random number between 202-301 and check whether it is an ODD number	[5]
CO-2 ; SO-1;BL-2	b.	Assume s is a string of lower-case characters. Write a program that prints the number of times the string 'bob' occurs in s. For example, if s = 'azcbobobegghakl', then your program should print Number of times bob occurs is 2	[5]
CO-3 ; SO-1;BL-2	c	Find length, maximum and the minimum value in a set	[5]
CO-4 ; SO-1;BL-2	d	Create a dictionary to keep student's marks, use student sapid as the key. Perform the below mentioned task on this dictionary. <ol style="list-style-type: none"> 1. Display all the keys 2. Display all the values 3. Take the sapid as the input and modify the grade given by user 4. Take the sapid from the user to remove that user from the dictionary 	[5]
Q2 CO-2; SO-1; BL-2	a	Return array of ODD rows and EVEN columns of 4X4 numpy array.	[10]
Q2 CO-3; SO-1; BL-2	b	Write a program to create a dataframe from a list containing dictionaries of the sales performance of four zonal offices. Zone names should be the row labels. <pre>zoneA = {'Target' : 56000, 'Sales' : 58000} zoneB = {'Target' : 70000, 'Sales' : 68000} zoneC = {'Target' : 75000, 'Sales' : 78000} zoneD = {'Target' : 60000, 'Sales' : 61000}</pre>	[10]
Q3 CO-4; SO2-; BL-3	a	Write Python Program to Read a Number n and Print the Sum of odd Natural Numbers between the range of 1 to 200 both inclusive	[10]
Q3 CO-3; SO2-; BL-1	b	Write a method in Python to read lines from a text file INDIA.TXT, to find and display the occurrence of the word 'India'. For example, if the content of the file is: India is the fastest-growing economy. India is	[10]

		looking for more investments around the globe. The whole world is looking at India as a great market. Most of the Indians can foresee the heights that India is capable of reaching. The output should be 4.	
Q4 CO-1; SO-1; BL-1	a	Create a list(iterable) of the scores of 5 students in a Maths exam and filter out those who passed with scores more than 50 using filter	[10]
Q4 CO-2; SO-1; BL-1	b	Write a Python function that accepts a string and counts the number of vowels in the string	[10]
Q5 CO-4; SO-1; BL-3	a	Create a Student table and add 5 records in it having the following values (Name, Id, age). Display the records	[10]
Q5 CO-3; SO-1; BL-4	b	Write a python Program to create a list of marks of 5 students and print the lowest marks.	[10]
Q6 CO-1; SO-1; BL-1	a	Write a program to print all the strong numbers between 1 to 100.	[10]
Q6 CO-4; SO-1; BL-3	b	Write Python Program to Read a Number n and Print the Sum of odd Natural Numbers between the ranges of 1 to 200 both inclusive.	[10]
Q7 CO-2; SO-3; BL-3	a	Write a code for the following: (String Operations) Reverse a sentence accepted as input by User Find the characters at an odd position in string input by User	[10]
Q7 CO-3; SO-3; BL-1	b	Write a python program to generate Fibonacci number series.	[10]