Aegis School of Data Science and Cyber Security Final Exam (Re-Exam) Subject: - Python Programming

Name of student: - Enrollment No: -

Q1. Use Products, customers, Sales csv files and perform following exercise (10 Marks)

- a. List of products sold
- b. List of quantity sold against each product.
- c. List of quantity and total sales against each product
- d. List of quantity sold against each product and against each store.
- e. List of quantity sold against each Store with total turnover of the store.
- f. List of products which are not sold
- g. List of customers who have not purchased any product.

Q2. Form cars data (20 Marks)

- a. From a dataframe show first and last five rows?
- b. Clean CSV data and update the file?
- c. Find which car brand price is maximum?
- d. Find All "Nissan" Cars information's?
- e. Let calculate total no. of cars per firm?
- f. Find each brand's highest price car?
- g. Find the average mileage of each car brand?
- h. Sort all cars by Price?
- i. Concatenate two data frames and make a key for each data frame?
- j. Merge two data frames using following condition?
- Q3.Write a Python program that accepts a sequence of whitespace 7. Separated words as input and prints the words after removing all duplicate words and sorting them alphanumerically. (10 Marks)
- Q4. Write a Python program to a) Compute the frequency of the words from the input. The output should output after sorting the key alphanumerically. b) Program that accepts a comma separated sequence of words as input and prints the words in a comma-separated sequence after sorting them alphabetically
- Q5. Write a Python program (20 Marks)
- a) To add 'ing' at the end of a given string (length should be at least 3). If the given string already ends with 'ing' then add 'ly' instead. If the string length of the given string 5. is less than 3, leave it unchanged. Sample String: 'abc' Expected Result: 'abcing' Sample String: 'string' Expected Result: 'stringly'
- b) To get a string from a given string where all occurrences of its first char have been changed to '\$', except the first char itself.

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Q6. TIC-TAC-TOE Two player Game (20 Marks)

Develop and test a python program that lets two players play tic-tac-toe. Let player 1 be X and player 2 be O. Device a method for each player to indicate where they wish to place their symbol. The program should terminate if either there is a winner, or if the game results in a tie. The tic-tac-toe board should be displayed after every move as shown below

X	_	X
0	0	_
X	X	0

Q7. Write a python function called addDailyTemp that is given a (possibly empty) dictionary meant to hold the average daily temperature for each day of the week, and a particular day of the week and temperature for that day to add to the dictionary. The function should add the temperature for that day to add to the dictionary only if it does not already contain a temperature for that day. (10Marks)

Q8. Write a python function named moderateDays that is given a dictionary containing the average daily temperature for each day of a week and returns a list of the days in which the average temperature was between 70and 79 degrees. (10Marks).