# **EMBARKS SYSTEMATIC SAMPLING**

# Sheet 3

## Part A

1. Square pattern with numbers

1 2 3 4 5

2 2 3 4 5

3 3 3 4 5

4 4 4 4 5

5 5 5 5 5

1. Write a Python program that uses a "for" loop to iterate over a string and prints out each character along with its count.

## Part B

## 1) Double the number pattern

1. 1
2. 2 1
3. 4 2 1
4. 8 4 2 1
5. 16 8 4 2 1
6. 32 16 8 4 2 1
7. 64 32 16 8 4 2 1
8. 128 64 32 16 8 4 2 1

2)Write a Python program that uses a list comprehension to create a new list that contains only the uppercase letters in an existing list of strings

## Part C

1)Implement a Python function to check if a given string is an anagram of another string

2) Write a Python program that asks the user to input a password, and then checks whether that password is strong enough (i.e. whether it contains at least one uppercase letter, one lowercase letter, and one number).