**NOTE**: Use Python’s **IDLE** interactive tool. Write your answer beside each command in this sheet in **bold**.

1. **Lists in Python**: Given the following two lists:

L1 = [2.3, 'pool', 15, (6, 14, 10), [(8,'x'), 16, (4,'y')], 'CANADA', 'XYZ', 33, 'Python']

L2 = ['brown', 'bears', 45, 5.00, 'big', 'tree']

***Work with list indexing, slicing, striding***:

Indicate the results if you type the following at the Python prompt in IDLE interactive mode:

1. L1[1][1] o
2. L1[3][0] 6
3. L1[4][2][1] y
4. len(L1) 9
5. L1[14] list index out of range
6. L1[-4:-1] ['CANADA', 'XYZ', 33]
7. L1[2:14]
8. L1[-2:0:2] [15, (6, 14, 10), [(8, 'x'), 16, (4, 'y')], 'CANADA', 'XYZ', 33, 'Python']
9. L2+L1 Text

   Description automatically generated
10. L2\*2

Text

Description automatically generated

1. \*L1[4][1] = 4

SyntaxError: starred assignment target must be in a list or tuple

1. del L2[-3]

['brown', 'bears', 45, 'big', 'tree']

\*For 1k) specify the updated list

***Work with list methods***:

Type python commands to do the following:

1. append the string 'greetings' to L1

L1.append(‘greetings’)

1. remove the last element of L2

del L2[-1]

1. insert the item 3.22 at index 2 in L1

L1.insert(2, 3.22)

1. add the integers in the list [12, 15] at the end of L2

L2 += [12, 15]

1. **Strings in Python:** Given the following two strings:

s1 = "Internet Applications and Distributes Systems"

s2 = 'COMP 8347 Fall 2020'

***Work with string indexing, slicing, striding, assignment, concatenation***: Indicate the results if you type the following at the Python prompt in IDLE interactive mode. Indicate the type of error if the command is wrong:

1. s1[:6] ‘Intern’
2. s2[-1:-4] ‘’
3. s1[1] = ' '

**TypeError: 'str' object does not support item assignment**

1. s2[-1:] **‘0’**
2. s2[0:20:2] 'CM 37Fl 00'
3. s1+" "+s2 'Internet Applications and Distributes Systems COMP 8347 Fall 2020'

***Work with string methods***: Use **str** methods to do the following and indicate the corresponding results:

1. Check if the string s2 ends with the word '2020'

s2.endswith(‘2020’)

1. Determine leftmost position of ‘App’ in s1

s1.find('App')

1. Return a list of words from s1

**s1.split(" ")**

1. Convert s2 to all lowercase letters

s2.lower()

1. Replace the string 'COMP' of s2 with empty string

s2.replace(‘COMP’, ‘’)

1. Count the number of times ‘p’ occurs in s1

s1.count('p')