IT5001 Quiz **Student Number: ____________________**

Question 1 Expression Evaluation [30 marks]

Evaluate the following terms. If we type them into the shell, what will be the output or echo from IDLE? If any of these causes an error, please write “error” instead. The type of your answer is important, e.g. the integer `5` is different from `‘5’` or `5.0`.

Evaluate the Following:	Answer:
`print((1,2,3,4).sort())`	`Error`
`True or sqrt(-1)`	`True`
`len(((1,2,3,4,5)))`	`5`
`'abcdefghi'[5:99:2]`	`'fh'`
`not True or True`	`True`
`'a'+'b' * 3`	`‘abbb’`
`sorted('100')`	`['0', '0', '1']`
`set([i%3 for i in range(20)])`	`{0,1,2}`
`round(1.99)`	`2`
`'I1 2d3iadd tiatb!g'[::2]`	`‘I did it!’`

Question 2 Code Tracing [35 marks]

Each row of the table is a separate program/file. What is the output of each of them when we run it? If the code produces errors or runs into infinite loops, please state ‘error’ or ‘infinite loop’ respectively.

Code	Output

`a = 1`
`print( a + (--a))`
	2

`a = 0.0`
`while (a != 1.0):`
`    a += 0.1`
`print(a)`
	Infinite loop

`a,b,c = 1,2,3`
`a,b,c = b,c,a`
`a,b,c = c,b,a`
`print(str(a)+str(b)+str(c))`
	132

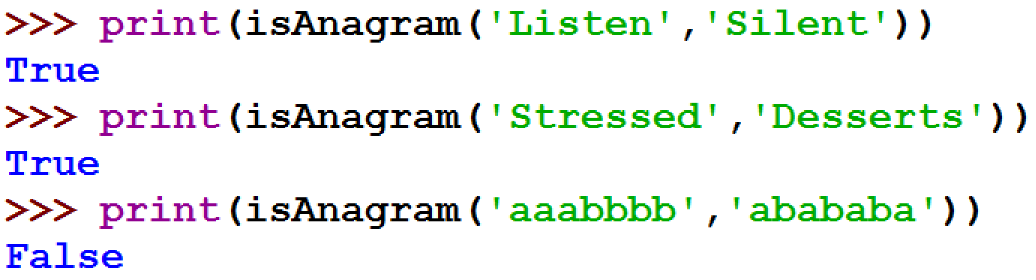
`L = list('1007')`
`sorted(L)`
`print(L)`
	['1', '0', '0', '7']
	4 mark for
	[‘1’,’0’,’7’],
	[‘7’,’0’,’0’,’1’]

`x = 0`
`def incX(n):`
`    for i in range(n):`
`        x = x + i`
`incX(5)`
`print(x)`
	Error

Question 3 Anagram [35 marks]

An *anagram* is a word formed by rearranging the letters of a different word, typically using all the original letters **exactly once**. Write a function to check if two words are an anagram to each other. You can assume the two inputs are two strings with the 26 English alphabets only, but possibly in capital letters, or not.

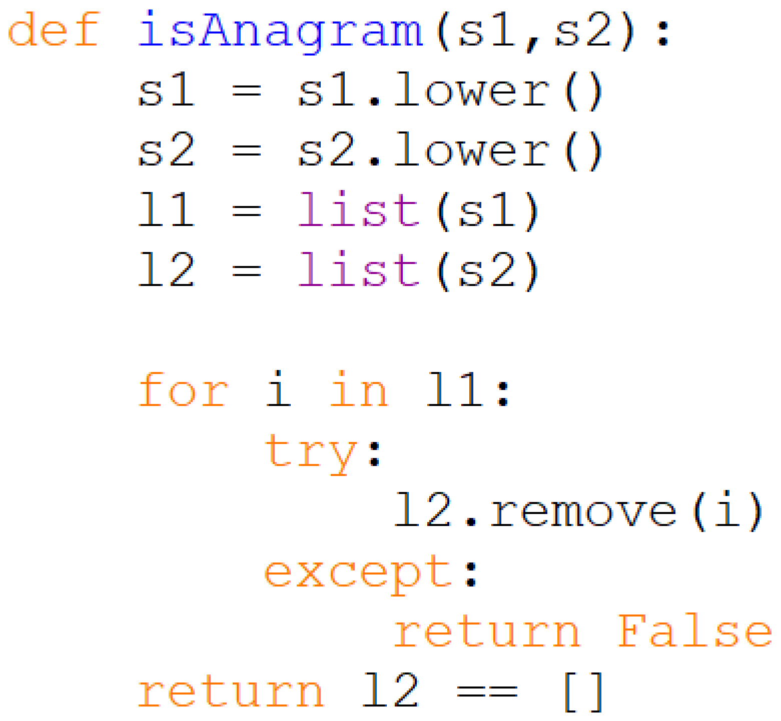
Sample output:



```
>>> print(isAnagram('Listen','Silent'))
True
>>> print(isAnagram('Stressed','Desserts'))
True
>>> print(isAnagram('aaabbbb','abababa'))
False
```

Your length of your code contributes to your final mark of this question also. Namely, the shorter your code is, the higher mark you got. The light grey lines are there to help you to do your indentations.

```
def isAnagram(s1,s2):
```



```
def isAnagram(s1,s2):
    s1 = s1.lower()
    s2 = s2.lower()
    l1 = list(s1)
    l2 = list(s2)

    for i in l1:
        try:
            l2.remove(i)
        except:
            return False
    return l2 == []
```