



DIGITAL TECHNOLOGY

Academic Year 2021-22

Prof. Barbara PERNICI

Exam 15/2/2023

Total time 1.30 h

Question 1 [11 points]

Last name

First name

Matricola/Person code

Signature

Please remember that:

- *The exam is closed books.*
- *The use of cellular phones or any other electronic device during the exam is forbidden.*

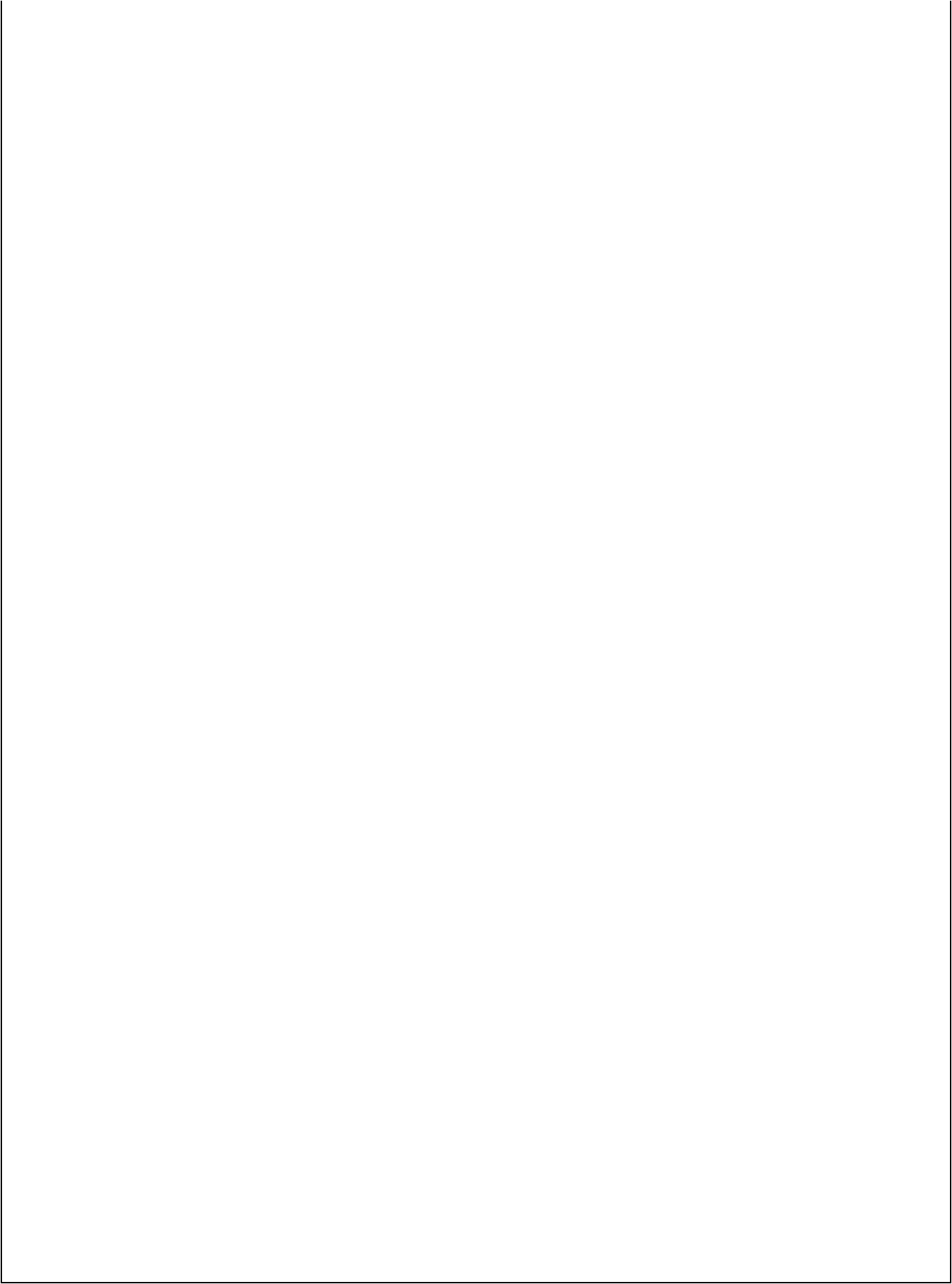
It is necessary to answer at least partially all the questions for a positive evaluation.

Given answers should be explained, lists of bullet items are not sufficient to answer a question.

Question 1 [11 points]

Illustrate the meaning of SDG goals, targets and indicators.

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Question 2 [11 points]

Last name

First name

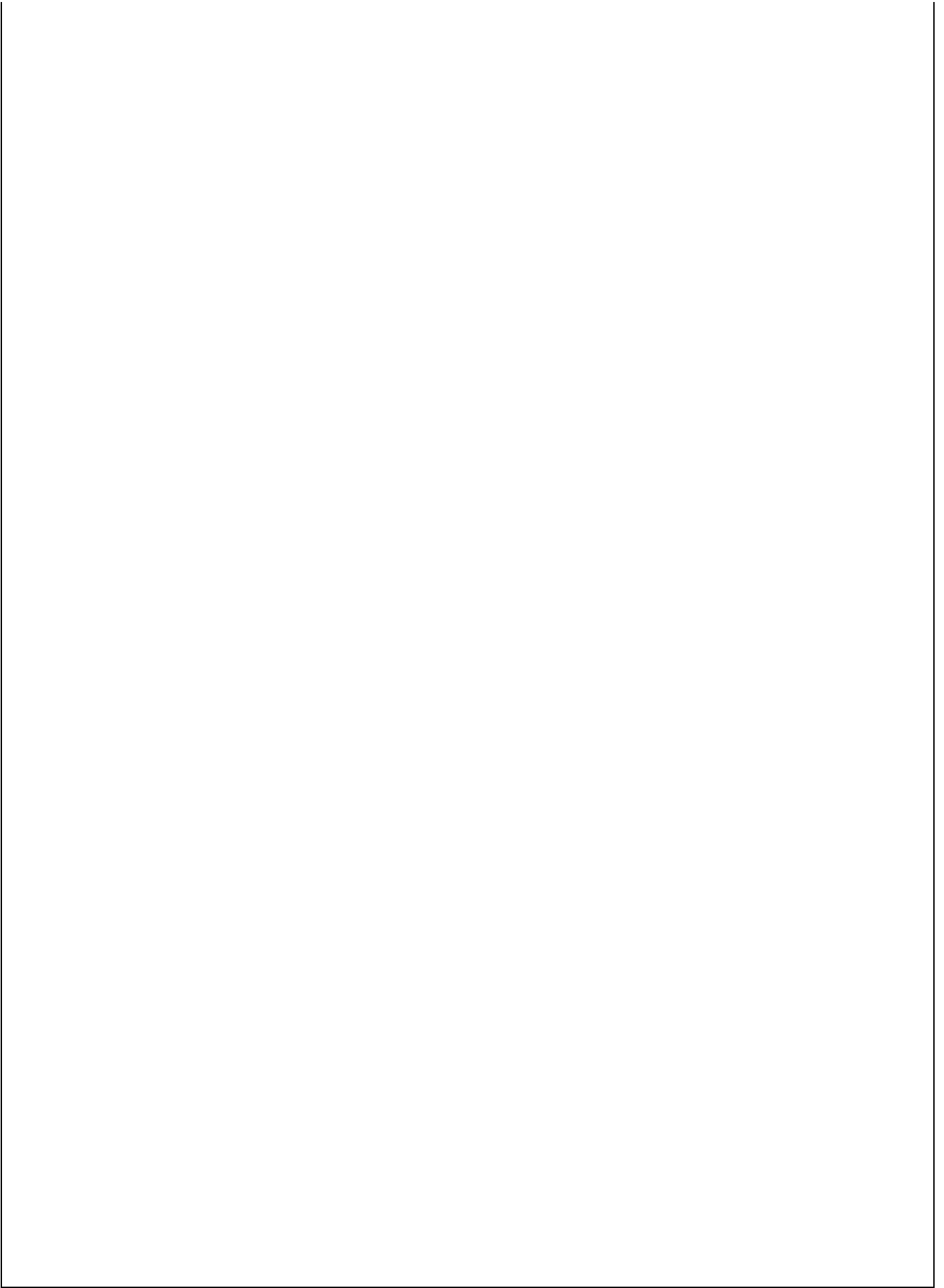
Matricola/Person code

Signature

Question 2 [11 points]

XXX

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Question 3 – Python [11 points]

Last name

First name

Matricola/Person code

Signature

Consider the following fragment of Python code:

```
a = {'A': [1, 2, 3], 'B': [4, 5, 6], 'C': [7, 8, 9]}
b = {'B': [4, 3, 7], 'C': [4, 3, 1], 'D': [2, 6, 9]}
tmp = {}

s1 = set(a.keys())
s2 = set(b.keys())

for k in s1.union(s2):
    if k in a and k in b:
        tmp[k] = a[k] + b[k]
    elif k in a:
        tmp[k] = a[k]
    else:
        tmp[k] = b[k]
```

Then please answer the following questions:

- # 1. Provide a qualitative description step by step, in simple terms, of the program workflow.
- # 2. Implement a function that given a list and a value count how many times the value is in the list.
- # 3. Which are the characteristics and differences of a tuple and a list?

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