1. Does assigning a value to a string's indexed character violate Python's string immutability?

Ans: Yes. A string's indexed character can not be modified or it's location cannot be accessed. This raises an error.

2. Does using the += operator to concatenate strings violate Python's string immutability? Why or why not?

Ans: += operator does not violate Python's string immutability as the concatenation only creates a new association, and no string data is actually modified.

3. In Python, how many different ways are there to index a character?

Ans: A Character in string can be indexed using string name followed by index number of character in square bracket.
Positive indexing: string[1] and Negative indexing: string[-1]

4. What is the relationship between indexing and slicing?

Ans: Indexing is used to obtain individual elements while slicing for sequence of elements.

5. What is an indexed character's exact data type? What is the data form of a slicing-generated substring?

Ans: Indexed characters and sliced substrings have string datatype.

6. What is the relationship between string and character's in Python?

Ans: Strings are sequences of characters

7. Identify at least two operators and one method that allow you to combine one or more smaller strings to create a larger string.

Ans: +, += and * allow to combine one or more smaller strings to create a larger string.
.join() method joins elements of iterable type like list and tuple to get a combined string.

8. What is the benefit of first checking the target string with in or not in before using the index method to find a substring?

Ans: Checking the target string with in or not before using the index method to find a substring helps confirm availability of substring and thus avoid raising of ValueError.

9. Which operators and built-in string methods produce simple Boolean (true/false) results?

Ans: The built-in string methods to produce simple Boolean (True/False) Results are:

- in
- not
- <string>.isalpha()
- <string>.isalnum()
- <string>.isdecimal()
- <string>.isdigit()

- <string>.islower()
- <string>.isnumeric()
- <string>.isprintable()
- <string>.isspace()
- <string>.istitle()