**Question 1: Accessing the First Character**

**How can you access the first character of the string Hello, world?**

Hint: Remember, indexing in strings starts at 0.

**Question 2: Accessing the Last Character**

**What is the method to access the last character of a string, such as in Goodbye?**

Hint: Negative indexing allows you to start from the end of the string.

**Question 3: Slicing a Substring**

**Extract the word Hello from the string Hello, world.**

Hint: Use slicing by specifying the start and end indices of the substring you want to extract.

**Question 4: Reversing a String**

**How can you reverse the string Python using slicing?**

Hint: Slicing can be used with a specific step to reverse the order of characters.

**Question 5: Skipping Characters in a Slice**

**If you want to extract every other letter from abcdefghijk starting from a, how would you do that?**

Hint: The step parameter in slicing controls how many characters to skip.

**Question 6: Default Values in Slicing**

**What happens if you omit the start or the end value while slicing a string, such as [:5] or [3:] in Hello, world?**

Hint: Omitting start or end values in slices uses default values that represent the beginning or the end of the string, respectively.

**Question 7: Negative Indices in Slicing**

**Use negative indices to extract world from Hello, world.**

Hint: Negative indices count backward from the end of the string.

**Question 8: Length of a Slice**

**Without directly counting, how can you determine the length of the slice Hello from Hello, world?**

Hint: Consider using the **len()** function on your slice.

**Question 9: Slicing with Out-of-range Indices**

**What happens if you use a slice with an index that is out of range, such as [0:100] in Short?**

Hint: Python handles out-of-range indices in slices gracefully without throwing an error.

**Question 10: Immutable Strings Modification Attempt**

**Attempt to change the first letter of Python to J using indexing. What do you observe and why?**

Hint: Strings are immutable, meaning their characters cannot be changed after the string has been created. Consider how this property affects attempts to modify a string through indexing.