

Q.1 What is list? How will you reverse a list?

Ans: List is a collection which is ordered and changeable. Allows duplicate members.

Ex:

```
str=['a','b','c','d','e']  
str.reverse()  
print(str)
```

Q.2 Difference between append() and extend() methods

Append()	Extend()
Add a single element to the end of the list.	Adds multiple elements from an iterable to the end of list.
Accepts a single element.	Accepts an iterable.
Length increases by 1.	Length increases by the number of elements in the iterable
It will add an element to the list without any changes.	Iterable Object will append each of the elements at the end of the list.
The append() method is simpler and more straightforward.	The extend() method is more versatile as it can concatenate multiple iterables.

Q.3 what is tuple? Difference between list and tuple

Ans: Tuple is a collection which is ordered and unchangeable. Allows duplicate members.

List	tuple
List is a collection which is ordered and changeable. Allows duplicate members	Tuple is a collection which is ordered and unchangeable. Allows duplicate members
List is represented with square brackets []	Tuple is represented with parentheses ()
List is mutable object.	Tuple is immutable object

Q 4 Why Do You Use the Zip () Method in Python?

Ans: The zip() function in Python is used to combine two or more lists (or other iterables) by pairing elements with the same index from each list. It returns an iterator of tuples, where each tuple contains one element from each iterable.

Ex:

```
names = ['ava', 'jules', 'stella']  
age = [25, 20, 23]  
paired = list(zip(names, age))  
print(paired)
```

Q.5 How Many Basic Types Of Functions Are Available In Python?

In Python, there are two basic types of functions:

1.Built-in Functions:

These are functions that are readily available in Python without the need for any import.

Examples include ``print()`, `len()`, `type()`, `max()`, `min()`, and `sum()`.`

2. User-defined Functions:

These are functions that you define yourself to perform specific tasks.

You create these functions using the ``def`` keyword.