

### 1) What is list? How will you reverse a list?

- A list is a data structure in python that is a mutable, or changeable, ordered
- sequence of element.
- Each elements or value that is inside of a list is called an item.
- Lists are defined by having values between square bracket's [ ].
- Using the slicing technique we can reverse a list
- Using the reversed() and reverse() built in function.

### 2) How will you remove last object from list?

- One way is to use the pop() methods.
- This methods removes the last element of a list by default, or you can specify
- the index of the element you want to remove.

### 3) Suppose list1 is [2, 33, 222, 14, and 25], what is list1 [-1]

- In list [-1] is 25

### 4) Differentiate between append () and extend () methods?

- Append() adds a single element to the end of the list while extend () can add
- multiple individual elements to the end of the list.

### 5) How will you compare two lists?

- The `cmp()` function is a built in method in python used to compare the elements of two lists.
- The function is also used to compare two elements and return a value based on the arguments passed.

#### 6) How will you create a dictionary using tuples in python?

- There are different ways to create a dictionary using tuples in python.
- One of the simplest ways is to use the `dict()` function, which takes a list of
- tuple as an argument and returns a dictionary where the first element of
- each tuple is the key and the second element is the value.

Example:-

```
List_of_tuple [("name","alice"),("age",25)]
```

```
Dictionary=dict(list_of_tuple)
```

#### 7) How Do You Check The Presence Of A Key In A Dictionary?

- There are several ways to check the presence of a key in a dictionary in python.
- Using the `in` operator you can use the `in` operator to check if a key is in a dictionary.

Example:-

```
If key in dic :  
    Return true  
else:  
    return false
```

## 8) How Do You Traverse Through A Dictionary Object In Python?

- A dictionary object in python is a collection of key and value pair that can be accessed by using the keys as indexes.
- There are different ways to traverse through a dictionary object in python, depending on what you want to do with the keys and values.
- If you want to iterate over both the keys and values of a dictionary, you can use the .items() method, which return
- A view object that contain the key-values pairs as tuple.

## 9) Why Do You Use the Zip () Method in Python?

- The zip () method in python is used to combine two or more iterables, such as list,tuple,string,dictionary ,etc
- Zip () method also useful for performing operation on multiple iterables in looping,sorting,mapping,filtering,etc.

## 10) How Many Basic Types Of Functions Are Available In Python?

- There are two types of function in python programming
  - ❖ Built-in function
  - ❖ User-defined function

Built-in function:

There are the function that are already written and defined.

Example:-

print(), id ()

11) How can you pick a random item from a list or tuple?

- One way to pick a random item from a list or tuple in python is to use the `random.choice()` function from the random module.
- This function takes a sequence as an argument and return a randomly selected elements from it .

12) How can you pick a random item from a range?

- There are different ways to pick a random item from a range in python.
  - Using `random.randrange()` function
  - Using `random.randint()` function
  - Using `random.random()` function
  - Using `random.choice()` function

13) How can you get a random number in python?

- Python defines a set of function that are used to generate or manipulate random number through the random module.

Example:-

```
Import random
Num=random.random()
Print(Num)
```

14) How will you set the starting value in generating random numbers?

- Set the starting value in generating random number in python, you can use the `seed()` method of the random module.

- This method takes an optional argument that is an integer or a float , and sets the initial state of the random number generator.

15) How will you randomizes the items of a list in place?

- The random module in the python standard library provides a shuffle function that return a sequence with its elements randomly placed.