1) What is List? How will you reverse a List?

- A list in python is a data type that can store multiple itmes in single variable.
- List are created using square breackets and can contain different types of data such as numbers,strings or objects.
- List are mutable which means they can be changed afted they are created.

Reverse list:-

Using the reverse() method you can reveerse list

Ex..

Sys=[“window”,”macOs”,”linux”]

sys.reverse()

Print(sys)

2) how will you remove last object from a list?

- You can remove the last object from a list by using the del keyword or pop () function or slicing

Ex..

n=[2,33,222,14,25]

n.pop()

print(n)

3) deffrent between append() and extend() methods?

- The append method add a single element to the end of a list .
- In extend method we add multiple elements to a list.

5) How will you comapare two lists?

- To compare two lists in python you can use different methods depending on what kind of comparison you want to do.
- To compare if two lists have the same elements in the same order you can use == operator.
- It will returen true if the lists are equal and false otherwise.

Ex..

```
Li=[31,34,3]

Li2=[31,34,3]

Print(li==li2)
```

18) What is tuple ?diffrence between list and tuple.

- A tuple in python is a type of container that can strore multiple data types separated by commas.
- Its similar to a list but it has some diffrences.
- The main difference between a list and tuple is that
- A list is mutable which means it can be changed or modified after its cration.
- A tuple is immtable which means it cannot be changed or modified once its is created.
- A list has more built in methods than tuple such as append(),extend(),insert(),remove(),pop(),etc
- A tuple has only two methods:count() and index().

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

- If you have a list of tuples where each tuple contains key and value you van use the dict() function to convert the list into dictionary.

```
L=[(“a”,1),(“b”,3),(“c”,4)]

t=dict(l)

print(t)
```

35) How do you traverse through a dictionary object in python

Dictionary in python is a collection of data values,used to store data values like a map unlike other data types that hold only a single value as an element,

- Dictionary holds the key:value pair.
- There are multiple ways to iterate over a dictionary in pyhton.
- Access key using the build.keys()
- Access key without using a key()
- Iterate through all values using.values()
- Access both key and value without using items()
- Access both key and value without using items()
- Print items in key-value in pair

36) How do you check the presence of a key in a dictionary?

- ❖ Using the inbuilt method get() method returns a list of a available in the dictionary.with the inbuilt method keys() use the if statement to check if the key is present in the dictionary or not.
- ❖ Using the item() method along with a for loop .by iterating over the key-value pairs in the dictionary and comaparing the keys to the desired key you can determine if the key is present in the dictionary.
- ❖ Using the get function. If the gieven key exists in the dictionary then it returns the value associated with this key.if the given key does not exist in the dictionary then it returns the passed default value argument.if the given key does not exist in the dictionary and default value is also not provided then it returns none.

43) Why do you use zip() method in python?

- ❖ The zip() method in python is used to combine two or more itrables such as lists tuples,string,dictionaries etc
- ❖ Into single iterable object where elements from corresponding positions are paired together as tuples.

- ❖ Python zip() method takes iterable containers and returns a single iterator object,having mapped values from all the containers
- ❖ It is used to map the similar index of multiple containers so that they can be used just using a single entity.

Syntax:- zip(*iterators)

52) How many basic types of functions are available in python?

There are many basic types of functions are available in python as different sources may classify them differently.

- Built-in funcitons
- User-defined function
- Lamda functions
- Recursive function

53) how can you pick a random item from a list or tuple?

- ❖ One way to pick a ranodom 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 returns a randomly selected element from it.

Ex..

```
Import random

Fruit=[“apple”,”banana”,”cherry”,”durian”]

rf=random.choice(fruit)

print(rf)
```

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

- One way to pick a random item from a range in python is to use the random.randrange() function from the random module.
- This function takes start and stop argument and optionally a step argument,and returns a randomly selected integer from the range.

Ex..

```
Import random

n=random.randrange(1,11)

print(n)

n2=random.randrange(1,11,2)

print(n2)
```

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

- There are several ways to get a random number in python depending on the type and range of the number you want here are commn methods.
- To get a random integer between lower and upper bound you can use the random.randint(a,b) function from the random module.
- To get a random integer from a range with specified ssteo size you can use the random.randrange(start,stop,step) function from the random module
- To get a random floating-point number between 0.0 and 1.0 you can use the random.random()function from the random module.

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

- One way to set the starting value in generating random numbers in python is to use the random.seed() function from the random module. This function rakes an argument that can be any hashable object such as an integer a string or a tuple and uses it to initialize the internal state of the random number generator.
- The random .seed() fuction can be useful for testing or debugging purpose as it allows you to reproduce the same random behavior across different runs of the however if you want to generate truly random numbers that are

not predictable you should not use a fixed seed value or use none as the argument which will use the current system time as the seed.

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

- ❖ One way to randomize the itmes of a list in place in python is to use the random.shuffle() function from the random module.
- ❖ This function takes a list as an argument and shffles its element randomly.

Ex..

```
Import random

L=[1,2,3,4,5]

x=random.shuffle(l)

Print(x)
```