**Q-1 How many basic types of functions are available in python ?**

**Ans.** A function is collection of related assertions that performs a mathematical, analytical, or evaluative operation. Python functions are simple to define and essential to intermediate – level programming. The exact criteria hold to function names as they do to variable names. The goal is to group up certain often performed actions and define a function .raher than rewriting the same code block over for varied input variables, we may call the function and repurpose the code included within it with different variables. This functions are broad of two types, user-defined and built in functions. I

There are two types of function in python :

1. User-Defined-Functions

2. Buit-in-Functions

**1.User-defined- functions:**

These types of functions are defined by the user to perform any specific task. These functions are define by a programmer to perform any specific task or to reduce the complexity of big problems and use that function according to their need.

**EX:**

def sub (x,y):

returm X-Y

Print(sub(5,2)

**2.Buit-in-functions:**

These are pre-defined functions in python.Built-in-functions are already defined in python. A user has to remember the name and parameters of a particular function. Since these functions are pre-defined, there is no need to define then again.

**EX :**

str = “hello”

print(len(str))

**Q-2 How can you pick a random item from list or tuple?**

**Ans.** In python you can randomly sample elements from lisr with choice(), sample(), and choces() of the random module. These functions can also be applied to a string and tuple.

Choice() returns one random element, and sample() and choices() return a list of multiple random elements. Sample() is used for random sampling without replacement, and choices() is used for random sampling with replacement.

Random – Generate pseudo-random numbers

* This is 4 types we can generate randoms.
* Pick a random element : random.choice()
* Random sample without replacement random.sample()
* Initialize the random number generator random.seed().

Pick a random element: random. Choice()

**EX:**

Import random

L = [0,1,2,3,4,5]

Print(random.choice(l))

**Q-3 how can you pick a random item from range?**

**Ans.** To get random elements from sequence objects such as lists, tuples, strings in python ,use choice(), sample(), choices() of the random module. Choice() returns one random element, and sample() and choices() return a list of multiple random elements.

Similarly, What are the data items in a list called? A list is an ordered collection of values. The values that make up a list are called its elements, or its items. We will use the term element or item to mean the same thing.

How do you use random in python? Random integer values can be generated with the randint() function. This function takes two arguments: the start and the end of the range for the generated integer values. Random integers are generated within and including the start and end of range values, specifically in the interval [start, end].

**Q-4 How can you get a random number in python?**

**Ans.** Python defines a set of functions that are used to generate or manipulate random numbers through the random module. Functions in the random module rely on a pseudo- random number generator function random (), which generates a random float number between 0.0 and 1.0 . these particular type of functions is used in a lot of games, lotteries, or any application requiring a random number generation.

**EX:**

Import random

Num= random.random()

Print(num)

Output:

0.30078080420602904

**Q-5 how will you set the starting value in generating random numbers?**

**Ans**. The seed() method is used to initialize the random number generator.

The random number generator needs a number to start with ( a seed value) to be generate a random number .

By default the random number generator use the current system time. Use the seed() method to customize the start number of the random number generator.

**Syntax :** random.seed(a,version)

**a :** optional. The seed value needed to generate a random number. If it is an integer it is used directly , if not it has to be converted into an integer. Default values is none, and if None, the generator uses the current system time.

**Version:** An integer specifying how to convert the a parameter into a integer.

Default value is 2

**EX:**

Import random

Random.seed(10)

Print(random.random())

Random.seed(10)

Print(random.random())

**Q-6 How will you randomize the items of a list in place?**

**Ans.** The shuffle() method takes a sequence , like a list , and reorganize the order of the items.

**Syntax:** random.shuffle(sequence)

**Parameter values**:

**Sequence:** Required a sequence.

**Function :** Deprecated since python 3.9 removed in python 3.11. optional.

The name of a function that return a number between 0.0 and 1.0.

If not specified, the function random() .will be used

Import random

Def myfunction():

Return 0.1

My list \ [“apple”, “banana”, “ cherry”]

Print(mylist)

**Output:**

Apple

Banana

cherry