* What is python set?

1. Sets are used to store multiple items in a single variable.
2. Set is one of 4 built-in- data types in Python used to store collections of data, the other 3 are List, Tuple and Dictionary, all with different qualities and usage.
3. A set is a collection which is unordered, unchangeable and unindexed.

* What are the benefits of using python?

1. Easy to use, interpreted language, Dyamically typed, Free and open source, Extensive support for libraries and Portable.

* What is the difference between .py and .pyc files?

1. The .py files are the python source code files. While the .pyc files contain the bytecode of the python files. .pyc files are created when the code is imported from some other source. The interpreter converts the source .py files to .pyc files which helps by saving time.

* What is slicing in python?

1. Slicing is used to access parts of sequences like lists, tuples and strings. The syntax of slicing is [start:end:step]. The step can be omitted as well. When we write [start:end] this returns all the elements of the sequence from the start (inclusive) till the end-1 element. If the start or end element is negative I. it means the i’th element from the end. The step indicates the jump or how many elements have to be skipped.

* What are keywords in Python? And many keywords are present?

1. Keywords in python are reserved words that have special meaning. They are generally used to define type of variables. Keywords cannot be used for variable or function names.

* What are Literals in Python and explain about different Literals?

A Literal in python source code represents a fixed value for primitive data types. There are 5 types of literals in python-

1. String Literals – A string literal is created by assigning some text enclosed in single or double quotes to a variable. To create multiline literals, assign the multiline text enclosed in triple quotes. Eg.name=”Tanya”
2. A Character literal – It is created by assigning a single character enclosed in double quotes. Eg.a=’t’
3. Numeric literals- They include numeric values that can be either integer, floating point value, or a complex number. Eg. a=50
4. Boolean literals- These can be 2 values either True or False.
5. Literal collections- These are 4 types-
6. List collections-Eg. a=[1,2,3,’Amit’]
7. Tuple collections-Eg.a=(5,6,7,8)
8. Dictionary literals-Eg. dict=(1:’apple’,2:’mango’,3:’banana’)
9. Set literals-Eg. (“Tanya”,”Rohit”,”Mohan”)
10. Special Literal- Python has 1 special literal None which is used to return a null variable.

* How to combine dataframes in pandas?

The dataframes in python can be combined in the following ways-

1. Concatenating them by stacking the 2 dataframes vertically.
2. Concatenating them by stacking the 2 dataframes horizontally.
3. Combing them on a common column. This is referred as joining.

The concat() function is used to concatenate two dataframes. Its syntax is pd.concat([dataframe1, dataframe2]).

* What is PYTHONPATH?

It is an environment variable which is used when a module is imported. Whenever a module is imported, PYTHONPATH is also looked up to check for the presence of the imported modules in various directories. The interpreter uses it to determine which module to load.

* What are local variables and global variables in Python?

Global Variables:

Variables declared outside a function or in global space are called global variables. These variables can be accessed by any function in the program.

Local Variables:

Any variable declared inside a function is known as a local variable. This variable is present in the local space and not in the global space.

* What is the difference between Python Arrays and lists?

Arrays and lists, in Python, have the same way of storing data. But, arrays can hold only a single data type elements whereas lists can hold any data type elements.

* What are functions in Python?

A function is a block of code which is executed only when it is called. To define a Python function. The def keyword is used for function creaction.

* What is \_\_init\_\_?

\_\_init\_\_ is a method or constructor in Python. This method is automatically called to allocate memory when a new object/instance of a class is created. All classes have the \_\_init\_\_ method.

* What is self in Python?

Self is an instance or an object of class. In Python, this is explicity included as first parameter. However, this is not the case in Java where it’s optional. It helps to differentiate between the methods and attributes of a class with local variables.

The self variable in the init method refers to the newly created object while in other methods, it refers to the object whose method was called.

* What does [::-1] do?

[::-1] is used to reverse the order of an array or a sequence

Import array as arr

My\_array=arr.array(‘I’,[1,2,3,4,5])

My\_array[::-1]

Output as: array(‘I’,[5,4,3,2,1])

* How do you write comments in python ?

Comments in Python start with a # character. However, alternatively at times, commenting is done using docstrings( strings enclosed within triple quotes).

* How will you capitalize the first letter of string ?

In Python, the capitalize() method capitalizes the first letter of a string. If the string already consists of a capital letter at the beginning then, it returns the original string.

* What is a docstring?

A docstring is a documentation string that we use to explain what a construct does. We place it as the first thing under a function, class, or a method, to describe what it does. We declare a docstring using three sets of single or double-quotes.