**1. What is the difference between List and Tuples in Python?**

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| **List** | **Tuples** |
| 1. Syntax: list\_1 = [10, 'Hello',15.8] | 1. Syntax: tuple\_1 = (10, 'Hello',15.8) |
| 2. Lists are Mutable (Editable) | 2. Tuples are immutable (Non-Editable) |
| 3. List is better for performing operations such as insertion and deletion | 3. Tuple is appropriate for accessing the elements |
| 4. Lists consume more memory | 4. Tuples consume less memory as compared to Lists |
| 5. Lists has Variable Length | 5. Tuples has Fixed Length |

**2. What of Type of Language is Python?**

Python is an interpreted, object-oriented, high-level Programming Language with dynamic semantics.

Python is Capable of Scripting, but in general sense, it is considered as general-purpose Programming Language.

1. **Programming Languages**: The languages which are **interpreted and Compiled** and designed to facilitate a full-fledged code and software development.
2. **Scripting Languages**: The languages which are **interpreted** **without Compilation** and designed to make coding faster and much simpler.

**3. How is Python an interpreted language?**

Generally interpreted language is any programming language which is not in Machine level code before runtime. Therefore, Python is an interpreted language.

**4. What is PEP8?**

PEP stands for **Python Enhancement Proposal.** It is a set of rules that specify how to Format python code for maximum readability.

PEP8 is the Style Guide for Python Code, and it covers: **Formatting, Comments, Naming Conventions**

**5. How is Memory Managed in Python?**

**1.** Memory Management in Python is managed by **Python Private Heap Space.** All Python objects and data structures are located in a Private Heap. The Programmer does not have access to this Private Heap. **The Python Interpreter takes care of this** instead.

**2.** The allocation of heap space for Python Objects is done by the Python’s Memory Manager.

**3.** Python also has in-built Garbage Collector, which recycles all the unused memory and so that it can be made available to the heap space.

**6. What is namespace in Python?**

A namespace is a Naming System used to make sure that names are unique to avoid naming conflicts.

**7. What is PYTHONPATH?**

PYTHONPATH is an environment variable which is used when a module is imported. Whenever a Module is imported, PYTHONPATH is also looked up to check the presence of imported modules in various dictionaries.

**8. What are Python Modules? Name some commonly used built-in modules in Python?**

Python Modules are files containing python code. This code can either be functions, classes or variables. A Python Module is a .py file containing executable code.

Some commonly used built-in modules :

os

sys

JSON

math

random

**9. What is the difference between Python Arrays and Lists?**

Arrays and Lists, in Python, have the same way of storing data. But the only difference is Arrays stores only Single Data Type elements whereas Lists can hold any Data Type elements.

**10. What is \_\_init\_\_ ?**

\_\_init\_\_ is a special 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.

**11. What is a lambda function?**

**12. What are Keywords in Python?**

Total there are 33 reserved words in Python 3.7 which are called as Keywords.

Each keyword convey special meaning to compiler/interpreter and perform specific operation.

These keywords are case sensitive and these cannot be used as a Variable in Python.