

# Assignment

- 1) Who Developed Python Programming Language ?

**Guido van Rossum** is a Dutch Programmer who created Python.

- 2) Which type of programming does Python support ?

Python is a **multi-paradigm** programming language, supporting **object-oriented**, **structured** and **functional** programming.

- 3) Is Python case sensitive when dealing with identifiers ?

Yes, Python is a case-sensitive language. It treats uppercase and lowercase characters differently. This applies to identifiers too. For example, **username**, **Username** and **userName** will all be treated differently.

- 4) What is the correct extension for a Python file ?

The extension for a Python file is **“.py”**

- 5) Is Python code compiled or interpreted ?

Python is both **compiled as well as an interpreted** language, which means when we run a python code, it is first compiled and then interpreted line by line.

- 6) Name a few blocks of code used to define in Python language ?

A block is a piece of Python program text that is executed as a unit. The following are blocks: a module, a function body, and a class definition. Each command typed interactively is a block.

- 7) State a character used to give single line comments in Python ?

**#** is used to give single line comments in Python.

- 8) Mention functions which can help us to find the version of Python that we are currently working on ?

We can use the function **“python\_version()”** after importing it from **“platform”**.

- 9) Python supports the creation of anonymous functions at runtime, using a construct called **lambda**.

10) What does pip stand for ?

pip means “**preferred installer program**”

11) Mention a few built-in functions in python.

Some of the built-in functions in python are:

**sorted()**: Returns a sorted list

**type()**: Return the type of an object

**super()**: Returns an object that represents the parent class

**print()**: Prints to the standard output device

12) What is the maximum possible length of an identifier in Python ?

An identifier can have a maximum length of **79 characters** in Python.

13) What are the benefits of using Python ?

Benefits of Python:

- Easy to Read, Learn and Write
- Improved Productivity
- Interpreted Language
- Dynamically Typed
- Free and Open-Source
- Vast Libraries Support
- Portability

14) How is memory managed in Python ?

Memory management in Python involves a private heap containing all Python objects and data structures. The management of this private heap is ensured internally by the Python memory manager.

15) How to install Python on Windows and set Path variables ?

Steps to install Python and set PATH:

1. Go to the official Python website and navigate to the downloads tab for Windows.
2. Choose the latest Python version and download it.
3. Once the installer is downloaded, run the Python installer.
4. Check the **Install launcher for all users** check box. Further, check the **Add Python to path** check box to include the interpreter in the execution path.

16) Is Indentation required in Python ?

Yes, **Indentation is very important** in Python. Python uses indentation to indicate a block of code.