**Assignment Solution**

1. Who developed Python Programming Language?   
-> Python was created by Guido van Rossum, and released on February 20, 1991.

2. Which type of Programming does Python support?

->Python is a multi-paradigm programming language. Object-oriented programming and structured programming are fully supported, and many of their features support functional programming and aspect-oriented programming (including metaprogramming and metaobjects).

3. Is Python case sensitive when dealing with identifiers?

->Yes, Python is a case-sensitive language.

4. What is the correct extension of the Python file?

-> “.py” extension.

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?

-> 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?

-> we can use “#” or “##”.

8. Mention functions which can help us to find the version of python that we are currently working on?

-> sys.version.

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

10. What does pip stand for python?   
-> PIP stands for **Preferred Installer Program**.

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

-> Built-in functions in python are-

1. print()
2. type()
3. input()
4. len()
5. sum()

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

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

13. What are the benefits of using Python?

-> The benefits of using python are:

1. Easy to use.
2. Extensive Libraries and frameworks.
3. Efficient.
4. Versatile.

14. How is memory managed in Python?

-> Memory management in Python involves a private heap containing all Python objects and data structures.

15. How to install Python on Windows and set path variables?

-> Installation:

1. Download the binaries:
   1. Go to Python official website and navigate to the download tab for windows.
   2. Choose the latest python version.
   3. Click on the link and then choose your system version (32 or 64) download according to your system.
2. Run the installer:
   1. Run the installer, and check the Install launcher for all users check box.
   2. Then install according to your need by choosing customizable installation.
   3. Once the installation is over, you will see a Python Setup Successful window.
3. Set path variables:
   1. Right-clicking This PC and going to Properties.
   2. Clicking on the Advanced system settings in the menu on the left.
   3. Clicking on the Environment Variables button o​n the bottom right.
   4. In the System variables section, selecting the Path variable and clicking on Edit. The next screen will show all the directories that are currently a part of the PATH variable.
   5. Clicking on New and entering Python’s install directory.

16. Is indentation required in python?

-> In python indentation is important because it defines the block of statements.