# Assignment

Q1. Who develop the Python Programming Language?
Ans. ***Guido Van Rossum***

Q2. Which type of Programming does Python support?
Ans. Python is an *interpreted programming language*, supporting object-oriented, structured, and functional programming.

Q3. Is Python case sensitive when dealing with identifiers?
Ans. **Yes**, Python is a case-sensitive language, i.e., it treats uppercase and lowercase characters differently. This applies to identifiers too. You must avoid using the same name with different cases while naming identifiers.

Q4. What is the correct extension of the Python file?
Ans. ***.py***

Q5. Is Python code compiled or interpreted?
Ans. Python is an ***interpreted language***, which means the source code of a Python program is converted into bytecode.

Q6. Name a few blocks of code used to define in Python language?
Ans. ***a module, a function body, and a class definition.***

Q7. State a character used to give single-line comments in Python?
Ans. We can write a single-line comment by adding a ***single # character*** before any statement or line of code.

Q8. Mention functions which can help us to find the version of python that we are currently working on?
Ans. The function ***sys. version*** can help us to find the version of python that we are currently working on.

Q9. Python supports the creation of anonymous functions at runtime, using a construct called
Ans. ***lambda***

Q10. What does PIP stand for python?
Ans. ***Preferred Installer Program***

Q11. Mention a few built-in functions in python?
Ans.

- print( ) function
- type( ) function
- input( ) function
- abs( ) function
- pow( ) function
- dir( ) function
- sorted( ) function
- max( ) function

- round( ) function
- divmod( ) function
- id( ) function
- ord( ) function
- len( ) function
- sum( ) function
- help( ) function

Q12. What is the maximum possible length of an identifier in Python?
Ans. An identifier can have a maximum length of ***79*** characters in Python.

Q13. What are the benefits of using Python?
Ans.

- Easy to Learn and Use.
- Mature and Supportive Python Community.
- Hundreds of Python Libraries and Frameworks.
- Versatility, Efficiency, Reliability, and Speed.
- Big data, Machine Learning and Cloud Computing.

Q14. How is memory managed in Python?
Ans. 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.

Q15. 15. How to install Python on Windows and set path variables?
Ans. To install python:

1. *Go to https://www.python.org/downloads/*
2. *Simply download the file.*
3. *After downloading, simply install the Python.*

To 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 on 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.*

Q16. Is indentation required in python?
Ans. Indentation is mandatory in python to define the blocks of statements. It is preferred to use whitespaces instead of tabs to indent in python.