**Assignment**

**1)Who developed Python Programming Language?**

**Answer:**  Python Programming Language developed by **“Guido van** **Rossum”** and first released in the year **1991**.

**2)Which type of Programming does Python support?**

**Answer:** Python is a programming language that supports a wide range of programming paradigms.

* **Object-Oriented Programming**
* **Imperative Programming**
* **Functional Programming**
* **Procedural Programming**

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

**Answer: Yes**, Python is case sensitive when dealing with identifiers. It treats **uppercase** **and lowercase characters** **differently.**

**4)What is the correct extension of the Python file?**

**Answer: .py** is the correct extension of the Python file.

**5)Is Python code compiled or interpreted?**

**Answer**: Python is an **interpreted** language, so it is interpreted to code.

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

**Answer: Function** is a few blocks of code used to define in Python language.

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

**Answer:** For single line comments, we use **hash character (#)** into the python programs.

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

**Answer:** The function **sys.version** can help us to find the version of python that we currently working on.

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

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

**10)What does pip stand for python?**

**Answer:** PIP stands for **Preferred Installer Program**.PIP is a recursive acronym for Pip Installs Packages or Pip Installs Python. It is a command-line tool used to install and manage software packages written in Python.

**11)Mention a few built-in functions in python?**

**Answer: Python built-in Function:**

|  |  |
| --- | --- |
| **Function** | **Description** |
| abs() | Returns the absolute value of a number. |
| bool() | Returns the Boolean value of the specified object. |
| chr() | Returns a character from the specified Unicode code. |
| dict() | Returns a dictionary. |
| float() | Returns a floating point number. |

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

**Answer:** In Python, the maximum possible length of an identifier is **79 characters**.

**13)What are the benefits of using Python?**

**Answer: Benefits of Using Python**

* Easy to learn and use
* Open source and productive
* Supports multiple paradigms
* Rich libraries and modules
* Widely used for data science

**14)How is memory managed in Python?**

**Answer:** Python memory management system handles memory allocations in Python. Python memory management is an excellent start to building more efficient programs. Python has a private heap that stores our program’s objects and data structures.

**Types of memory allocation**

There are two types of memory allocation in Python

1. **Static memory**
2. **Dynamic memory**

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

**Answer: Install Python on Windows: -**

Step (1): Installing Python from Python.org

Step (2): Add Python to the windows environments variable path

Step (3): Upgrade pip to able to install Python modules

**16)Is indentation required in python?**

**Answer:** Indentation is an important concept of Python because without properly indenting the Python code, we will end up seeing Indentation Error and the code will not get compiled. Python indentation refers to adding white space before a statement to a particular block of code.