**29th Jan Assignment**

1. **Who developed python programming language?**

Python programming language was developed by a Dutch programmer Guido van Rossum.

1. **Which type of programming does python support?**

It supports multiple programming paradigms including structured (particularly procedural), object-oriented and functional programming.

1. **Is python case sensitive when dealing with identifiers?**

Yes.

1. **What is the correct extension of the python file?**

.py

1. **Is python code compiled or interpreted?**

Python programming is first compiled and then interpreted. The compilation part is hidden from the programmer. Python deletes the compilation as soon as we execute the code.

1. **Name a few blocks of code used to define in python language?**

Module, function body, class definition, script-file

1. **State a character used to give single-line comments in python?**

We can write single line comments by adding # before starting the line.

1. **Mention functions which can help us to find the versions of python?**

In command line:

python—version

In Jupyter notebook:

sys.version

1. **Python supports the creation of anonymous functions at runtime. Using a construct called**

Lambda

1. **What does pip stand for python?**

Preferred Installer Program

1. **Mention a few built-in functions in python?**

int(), float(), str(), bool(), input(), print(), list(), tuple()

1. **What is the maximum possible length of an identifier in python?**

79 characters

1. **What are the benefits of using python**?

* Presence of third-party modules
* Extensive support libraries (NumPy for numerical calculations, Pandas for data analytics, etc.)
* Open source and large active community base
* Versatile, Easy to read, learn and write
* User-friendly data structures
* High-level language
* Dynamically typed language (No need to mention data type based on the value assigned, it takes data type)
* Object-Oriented and Procedural Programming language
* Portable and Interactive
* Ideal for prototypes – provide more functionality with less coding
* Highly Efficient (Python’s clean object-oriented design provides enhanced process control, and the language is equipped with excellent text processing and integration capabilities, as well as its own unit testing framework, which makes it more efficient.)
* Internet of Things (IoT) Opportunities
* Interpreted Language
* Portable across Operating systems

1. **How is memory managed in python?**

The memory is a heap that stores the program's objects and other data structures.  The Python memory manager uses API methods to handle the allocation and deallocation of this heap space.

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

Install python from this link <https://www.python.org/downloads/>

To set path variable

Right click on My Computer ->Properties ->Advanced System setting ->Environment Variable ->New

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.

Clicking on New and entering Python’s install directory.

Python can now be used directly from the command prompt without having to write its location. Try executing the command python --version; it will output the version of Python installed on your system.

1. **Is indentation required in python?**

Yes. Indentation in python is very important. Python indentation is a way of telling a Python interpreter that the group of statements belongs to a particular block of code.