Jan 29th Assignment

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

-> Guido van Rossum.

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

-> Python is an interpreted programming language, which supports object-oriented,structured, and functional programming.

**3. Is Python case sensitive when dealing with Identifiers?**

**->** Yes, Python is case sensitive when dealing with Identifiers.

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

**->** The extensions for Python files are - **.py, .pyi, .pyc, .pyd, .pyo, .pyw, and .pyz.**

**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? ->** Indentation is used to define a block of code in python. Braces {} are used to define a block of code in most programming languages, like C, C++, and Java. But this indentation makes python unique among all programming languages.

**7. State a character used to give single-line comments in Python? ->** Hash character(#) is used to comment the single line in the Python program.

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

**->** To get the Version of the python Interpreter, they are listed as follows: ● Using sys.version method

● Using python\_version() function

● Using Python -V command

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

**->** Lambda

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

**->** Preferred Installer Program

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

**->** print( ) function, type( ) function, input( ) function, pow( ) function, sorted( ) function, max( ) function etc…

**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?**

**->** 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 ● Interpreted Language

● Portable across Operating systems

**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?**

**->** The complete path of python.exe can be added by:

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 Variable*s* 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.

**16. Is Indentation required in python?**

**->** Indentation is mandatory in python to define the blocks of statements. It is preferred to use whitespaces instead of tabs to indent in python.