Assignment - 2.

1) What the data types in Python? Explain.

—> • Numbers -> Numbers data types store numeric values number objects are created when you assign a value to them.

• Strings -> Strings in python are identified as a contiguous set of characters represented in the quotational marks. Python allows either pair of single or double quotes.

• Lists -> Lists are the most versatile of Python compound data types. A list contains items separated by commas and enclosed within square brackets ([])

• Tuples -> A tuple is another sequence data type that is similar to the list. A tuple consist of a number of values separated by commas unlike lists, however, tuples are enclosed within parenthesis.

• Dictionary -> Pythons dictionaries are kind of hash-table type. They work like associative arrays or hashes found in Perl and consist of key-value pairs. A dictionary key can be almost any python type, but are usually numbers or strings. Dictionaries are enclosed within curly braces.

2) Briefly explain history of python.

-> • Python is a general-purpose interpreted, interactive, object-oriented and high-level programming language.

• It was created by Guide van Rossum during 1985-1990. Python is named after a TV show called 'Monty Python's flying Circus' and not after Python - the snake.

• Nevertheless, it does not stop here. As a matter of fact, Python continues to impress with its continous development and progress. The development team moved on Python Be open.com in 2000 and that is where python 2.0 was released.

However, it didn't stop there. Python succeeded in releasing the new major version, Python 3.0, which was not in December 2008. Soon enough, this version was rapidly followed by a 3.1 version fixing the mistakes of the version.

3) Explain all the Operators in Python?

→ Operators are special Symbols in python that carry out arithmetic (or) logical Computations.

- Arithmetic Operators :-

  They are used to form mathematical operations like, +, -, ÷, x ----.

  Eg -> x+y+z x-y-z
  x*y x÷y

- Comparison operators:

  They are used to compare Values. It returns true (or) false according to the conditions.

  Eg -> x>y x==y x>=y
  x<y x!=y x<=y

- logical operators :-

  They are and, (or), not.

  Eg -> xandy x(or)y x not x.

- Bitwise operators :-

  They act on operands as if they were string of binary digits. They operate bit by bit;

  Eg -> x & y x|y
  x>>y x<<y

- Assignment Operator →
  They are used in python to assign values to variables.
  Eg → =, +=, -= *= /=
- Identity Operators →
  Eg → x is true
  x is not true
- Membership Operators →
  Eg → 5 in x
  5 not in x

4 Explain the features of python.

→
- Easy to learn and use → Python is easy to learn and use. It is developer friendly and high level programming language.
- Expressive language → Python language is more expressive means that it is more understandable and readable.
- Interpreted language → Python is an Interpreted language i.e, interpreter executes the code line by line at a time. This makes debugging easy and thus suitable for beginners.
- Cross-platform language → Python can run equally on different platforms such as windows, unix etc --, so we can say

that python is a portable language,

- Object - oriented language → Python supports object oriented and concept of classes and objects come into existance.

5) Justify why python is interactive interpreted language,

→ Python is an interpretor and when we are running interactively, we can type a line of pyton (a sentence) and python processed it immediately and is ready for us to type another line of python.