Assignment-2

1) What the data types in python? Explain

A. Integer: Positive (or) negative whole numbers are integer datatypes in python

Float: Any real number with a floating point representation in which a fractional component is denoted by decimal symbol (or) scientific notation.

Complex Number: A number with real & imaginary component represented as x+yj, x and y are floats and j is -1.

String: A string value is a collection of one (or) more characters put in single, double (or) triple quotes.

list: A list object is an ordered collection of one (or) more data items not necessarily of same type, put in square brackets.

Tuple: A Tuple object is an ordered collection of one (or) more data items, not necessarily of same type put in parentheses.

2) Briefly explain history of python.

A. Python was created by Guido Van Rossum in 1980 to 1990. He was member of National Research institutes of Mathematics and Computers science. Initially it was designed as a response to ABC program language that was also foregrounded in Netherlands. Among the main features of python compared to ABC language of the Amoeba operating System, the name python is named from the British TV Show Monty Python.

3) Explains the operators in python?

A. (i) Arthmetic operators → (Addition, Subtraction, Division multiplications)...
(ii) Relational operators → (<, >, <=, >=, ==, !=)
(iii) Assignment operators → (=, +=, -=, |=, *=, /.=, //=)
(iv) Logical operators → (and, or, not)
(v) Membership operators → (in, not in)
(vi) Identity operators → (is, isnot)
(vii) Bitwise operators → Binary AND (&), Binary OR (|), Binary XOR (^), ~, <<, >>.

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4.) Explain features of python?

A.
* Easy to code.
* free and open source
* Object-oriented language.
* GUI programming support.
* high-level language.
* Extensible feature.
* Python is portable language.
* Python is integrated language.
* Large standard library.
* Dynamically typed language.

5) Justify why python is interactive interpreted language?

A. Unlike C/C++ etc, python is an interpreted language (object-oriented). Unlike C language, which is a compiled programming language. The compiler translates the whole code in one-go rather than line by line. This is the reason why in C language all the errors are listed during compilation only.