Assignment -2

1. what the data types in python? explain.

A.
i) Numeric data-types
   1) int - integers is a whole number, without decimals of limited length.
      ~~cant~~ ex:- V=32
   2) float :- Float point number is a number, positive or negative containing one or more decimals.
      ex:- x = 13.8
   3) complex - complex number are written with a "i" as a imaginary part.
      ex:- -3+5i

ii) Test Data-type.
   1) string - string literals in python are surrounded by either single quatation marks or double quatation marks.
      eg:- V = " Hi, Good morning

iii) Boolean data-type-
   ① bool - only two expression ~~tr~~ True or False. If it runs the condition statements it gives true or else False.

2. Explain the history of python?
A. Python has become one of most interesting programming language of our time. It was concived by guide Van Rossum at CWI in the Netherlands during late 1980's The Most Amazing story is that he created python using solely his computer. His simple machine closed and all he had was this simple machine and his brilliant mind Thus, the first version of this program first appeared in 1991, that is 29 years ago. python was ironically named after the famous British sketch comedy series "Monty python flying circus" as the founding father was a big fan.

In February 1991, the first public version of python numbered 0.9.07, was posted Usenet alt. Source. forum.

New python succeded in releasing the new major version, python 3.0 in 2008 and followed by upcoming version.

3) Explain all the operators in python?
A) 1) Arithmetic operators:- used to perform Common Mathematical operation, they are.

Operators	Name
+	Addition
-	Subtraction
*	Multiplication
/	Division
%	Modulas
**	exponent
//	Floor division

2) Assignments operators - To Assign Values to Variable

operators	Name example
=	a=32
+=	(a=7)
-=	a-=28
*=	a*=93
/=	a/=9
%=	a%=1
//=	a//=17
**=	a**=25
$=	a$=30
|=	a|=7
^=	a^=3
>>=	a>>=22
<<=	a<<=64

3) Comparision -

operator	Name
==	equal
!=	not equal
>	greater than
<	less than
>=	greaterthan or equal to
<=	less than or equal to

4) Logical operators:-

operator	Description
and	Returns True if statements is true.
or	Returns True if one statement is true.
not	Reverse the result if the result is True, retures False.

5) Identity operators.-

operators	Description.
is	Returns True if both variables are same object.
is not	Return True if both variables are not same object.

6) Bitwise operators:-

operator	Name
&	AND
|	OR
^	XOR
~	NOT
<<	Left shift
>>	Right shift

4) Explain the features of Python?

A) Python provides lots of features that are listed below:-

1) Expressive language:-
Python language is more expressive means that is more understable and readable.

2) Free and open Source:-
Python language is freely available at offical web address the code is available.

3) Easy to learn and use:-
Python is easy to learn and use. it is developer friendly and high level programming language.

4) GUI programming support:-
graphical user interface can be developed using python.

5) Integrated:-
It can be easily integrated with language like c++, c, Java, etc.

5) Justify why Python is interactive interpreted language

→ 1) (.py) files are run in the Python interpreter. Interactive mode is a command line shell which gives immediate feedback for each statement, while running previously fed statement in active memory. As new lines are fed into the interpreter, the fed program is evaluated both in part and in whole.