Python basic Assignment1

1. In the below elements which of them are values or an expression? eg:- values can be

integer or string and expressions will be mathematical operators.

\*

‘hello’

-87.8

-

/

+

6

ANS: - OPERATOR: - \* , + , - , /

FLOAT: - -87.8

STRING: - ‘hello’

2. What is the difference between string and variable?

ANS: - a **string** is a value representing text.

a **variable** is a name that can refer to any value.

3. Describe three different data types.

Ans: -

**Numeric data types**: Python numeric data type is used to hold numeric values like *int, float, complex*

* int – holds signed integers of non-limited length.
* long- holds long integers(exists in Python 2.x, deprecated in Python 3.x).
* float- holds floating precision numbers and it’s accurate up to 15 decimal places.
* complex- holds complex numbers.

**String data types**: The string is a sequence of characters. Python supports Unicode characters. Generally, strings are represented by either single or double-quotes.

**Sequence types**:

* *list: -*The list is a versatile data type exclusive in Python. In a sense, it is the same as the array in C/C++. But the interesting thing about the list in Python is it can simultaneously hold different types of data. Formally list is an ordered sequence of some data written using square brackets([]) and commas(,).*,*
* *Tuple: -*The tuple is another data type which is a sequence of data similar to a list. But it is immutable. That means data in a tuple is write-protected. Data in a tuple is written using parenthesis and commas.*,*

4. What is an expression made up of? What do all expressions do?

ANS:- An **expression** is a combination of values, variables, operators, and calls to functions. Expressions need to be evaluated. If you ask Python to print an expression, the interpreter **evaluates** the expression and displays the result.The evaluation of an expression produces a value, which is why expressions can appear on the right hand side of assignment statements. A value all by itself is a simple expression, and so is a variable. Evaluating a variable gives the value that the variable refers to.

5. This assignment statements, like spam = 10. What is the difference between an expression and a statement?

ANS:- An expression evaluates to a value. Statements represent an action or command e.g print statements, assignment statements.

6. After running the following code, what does the variable bacon contain?

bacon = 22

bacon + 1

ANS: - => bacon = 23

7. What should the values of the following two terms be? 'spam' + 'spamspam' 'spam' \* 3

ANS: - => Both will give the same value that is ‘spamspamspam’

8. Why is eggs a valid variable name while 100 is invalid?

ANS: - => Rules of declaring a variable in python do not allow the variable name to start with a number that is the reason why the variable name 100 is a invalid variable name.

9. What three functions can be used to get the integer, floating-point number, or string version of a value?

ANS: - => The int(), float(), and str() functions will evaluate to the integer, floating-point number, and string versions of the value passed to them.

10. Why does this expression cause an error? How can you fix it? 'I have eaten ' + 99 + ' burritos.'

ANS: - => It gives a type error as the concatenation of int and string is not possible. To fix this error we will have to convert the data type of 99 which is int into a string ‘99’.