Assignment 1 \_ Python basic

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.

\* = Expressions

'Hello' = Values

-87.8 = Values

/ = Expressions

+ = Expressions

6 = Values

2. What is the difference between string and variable?

**String** is a collection of alphabets, words or other characters. It is used for storing characters/text.

Example = “Hello world”

**Variables** are symbols that can store data in a program. It gives data to computer for processing.

Example =

X = “Hello world”

X= Variable

3. Describe three different data types.

**Integer (int)** - Numeric data types with numbers without fractions. Examples = 11, -11, 0

**Floating Points(Float)** - Numeric data types with numbers with fractions. Examples = 11.01, -11.99.

**Character (char)** - Single letter, digit, punctuation mark, symbol, or blank space. Example = a, !, 5.

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

An **Expression** is a combination of operators and operands that is interpreted to produce some other values. Expressions are representation of values.

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

An **Expression** is a combination of operators and operands that is interpreted to produce some other values.

A **Statement** is used for creating values or displaying variables. Statements does not necessarily produce values as there primary function is to execute an operation.

spam = 10 (assigns the value 10 to Variable ‘spam’)

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

bacon = 22

bacon + 1

**Output = 23**

7. What should the values of the following two terms be?

'spam' + 'spamspam' = ‘spamspamspam’

'spam' \* 3 = ‘spamspamspam’

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

In python, variable names cannot start with a digit because of which eggs is a valid variable but 100 is not.

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

1- Str() functions

2- float() functions

3- int() functions

10. Why does this expression cause an error? How can you fix it?

'I have eaten ' + 99 + ' burritos.'

It will give a “type error” because in python you cannot concatenate a string (‘ I have eaten’) with an integer (99).

To fix this error, we need to convert the integer to a string before concatenating it with the other strings.

'I have eaten ' + ‘99’ + ' burritos.'