Python basics Assignment 1

Q1.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.

\* Expression

‘hello’ Value

-87.8 Value

- Expression

/ Expression

+ Expression

6 Value

2. What is the difference between string and variable?

A. Variable: It is something that holds a value that may change. In simplest terms, a variable is just a box that you can put stuff in.

String: It is simply a list of characters in order. Character is anything you can type on the keyboard in one keystroke, like a letter or number.

3. Describe three different data types.

#### A. Numbers

In Numbers, there are mainly 3 types which include Integer, Float, and Complex.

These 3 are defined as a class in python. In order to find to which class the variable belongs to you can use type () function.

#### String

A string is an ordered sequence of characters.

We can use single quotes or double quotes to represent strings. Multi-line strings can be represented using triple quote.

Strings are immutable which means once we declare a string we can’t update the already declared string.

#### List

A list can contain a series of values.

List variables are declared by using brackets [ ]. A list is mutable, which means we can modify the list.

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

A. An expression is a combination of values, variables, operators, and calls functions. Expressions need to be evaluated. If you ask Python to print an expression, the interpreter evaluates the expression and displays the result.

5. This assignment statements, like spam = 10. What is the difference between an

expression and a statement?

A. An expression evaluates to a value. A statement does something. Statements represent an action or command e.g print statements, assignment statements. Expression is a combination of variables, operations and values that yields a result value.

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

bacon = 22

bacon + 1

A. 22

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?

A. Because 100 is the integer. Variable names cannot began with integer value.

9. What three functions can be used to get the integer, floating-point number, or string

version of a value?

A. int()

float()

str()

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

‘I have eaten’ + 99 + ‘burritos’

A. can only concatenate str (not "int") to str

correction

'I have eaten' + str(99)+ 'burritos'