**I NEURON - ASSIGNMENT 1**

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.

\* **--------EXPRESSION**

'Hello' **---- VALUE**

-87.8 **----VALUE**

- **---------EXPRESSION**

/ **---------EXPRESSION**

* **--EXPRESSION**

6 **------- VALUE**

2. What is the difference between string and variable?

**Ans –**  a string is value representing text where a variable is refer to any value and A variable can be of several types like integer, string, float, etc. based on the value you assign to it. Anything you assign to a variable using quotes will be considered as a string. Thus, a string is one of several types of a variable.

3. Describe three different data types.

**Ans -**  1. STR = a string is value representing text

2. INT = its numeric values

3. float = function converts the specified value into a floating point number.

4. bool = boolean type are defined by the True or False keywords

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

Expression is made up of values, containers, and mathematical operators and expressions are used to evaluate the values or represent the result on the screen.

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

EXPRESSION - combination of operators, constants and variables. An expression may consist of one or more operands, and zero or more operators to produce a value.

STATEMENT - it is an instruction that a Python interpreter can execute, just like a command that a python interpreter executes like print.

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

bacon = 22

bacon + 1

--- After running the code bacon contains only value that we assigned to the bacon, its just like an integer value stored in alphabetic characters.

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

'spam' + 'spamspam’

'spam' \* 3

--- above both the expressions returns the same output as 'spamspamspam',

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

--- eggs is valid variable name because it is starts with alphabetic whereas 100 isn’t valid cause first letter is digit, in that position interpreter will not accept the variable name so we can’t assign a variable name starts with digit so 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?

--- str(), int(), float()

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

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

--- it’s causing a error because presence of an integer, interpreter can’t add string to an integer, we can fix this by converting integer as a string by typecasting 99 as string ‘99’.