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:**

**Values:** ‘hello’, -87.8, 6

**Expressions:** \* , - , / , +

2. What is the difference between string and variable?

**Ans: String** is one of the data types which contains set of characters enclosed inside double or single quotations.

Whereas **Variables** are containers, which stores the value

Eg:

org = “Ineuron”

Where,

Org = variable name

“Ineuron” = value of type String

3. Describe three different data types.

**Ans:**

Int , Float, String are the 3 different data types

**Int** – Integer is a data type assigned to variable which contains numerical data without decimal.

Eg: a = 254, b = 37

**Float** – Float is a data type assigned to variable which contains numerical data with decimal.

Eg: a = 34.4, b= 3863.2

**String** – String is a data type assigned to variable which contains alphanumeric character.

Eg: a = “Ankita”, b=”Patil”

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

**Ans**: Expression is made up of operator (+, -, /, \*)and values(34,1,3.3) which performs some calculation and returns the ans.

Example of Expression: a = 4 + 5 \* 6

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

**Ans:** Expression performs some set of task(calculating/evaluating) and returns a value. However, Statements are used for assignments or to store value, it doesn’t return anything.

spam = 10 is a statement

spam = 10 + 7 is an expression

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

bacon = 22

bacon + 1

**Ans:** bacon = 22

Because, after bacon + 1 the value 23 is not updated in the variable bacon.

If it would have been bacon = bacon + 1 the value of bacon would have been 23.

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

'spam' + 'spamspam'

'spam' \* 3

**Ans:**

1. ‘spam’ + ‘spamspam’ = spamspamspam

2. ‘spam’\*3 = spamspamspam

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

**Ans**: egg is a valid name as it is a alphabetic word which is not validating the rule of variable name as per python.

100 is not valid as it starts with numeric character which is not valid as per the rules of variable name.

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

**Ans:** int(), float(), str() are the three functions to get the integer, floating-point number, or string version of a value respectively.

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

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

**Ans: Cause of error:** can only concatenate str (not "int") to str

To fix this, we can convert 99 to “99”(string format) so that it will perform concatenation of the strings.

'I have eaten ' + ‘99’ + ' burritos.'