**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' - Values

-87.8 - Values

- - Expression

/ - Expression

* - Expression

6 - Values

**2. What is the difference between string and variable?**

Variable - A Variable is a Container which holds the Value

Eg: a = 10, company = “Ineuron”

Here value 10 is assign to variable a

**3. Describe three different data types.**

There are different types of Datatypes such as

* Numeric data types: int, float, complex.
* String data types: str.
* Sequence types: list, tuple, range.
* Binary types: bytes, bytearray, memoryview.
* Mapping data type: dict.
* Boolean type: bool.
* Set data types: set, frozenset.

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

An Expression is a combination of Values, Variables and operators

Eg : a =10

b = a+10

print(a)

b = 20

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

Over here spam = 10 is a Statement because we are assigning the Value to a Variable

**Statements**

* A Statement is used for creating Variables
* We don’t expect any result over it
* Eg: a = 20

**Expression**

* An Expression gives us a Value when it is been interpreted by the Python
* Eg : a = 30+40\*2

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

bacon = 22

bacon + 1

Over here the value of bacon remains as it is because we are not reassign the value of bacon it

Eg

bacon = 22

bacon = bacon + 1

Over here then the value will be change to 23

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

'spam' + 'spamspam'

'spam' \* 3

Over here

a = 'spam' + 'spamspam'

print(a)

Ans : a = spamspamspam

Plus operator (+) is acting as a concatenating

Over here

a = 'spam' \* 3

print(a)

Ans : a = spamspamspam

Spam word is getting multiply 3 times

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

Python follows Variable Naming Convention where

* A variable name must start with a letter or the underscore character
* **A variable name cannot start with a number**
* A variable name can only contain alpha-numeric characters and underscores (A-z, 0-9, and \_ )
* Variable names are case-sensitive (age, Age and AGE are three different variables)9. What three functions can be used to get the integer, floating-point number, or string version of a value?

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

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.'**

Over here the Expression causes an error because we cannot concatenate string with and int

So we need to convert 99 number to str which is called Type Casting

Eg : a = 'I have eaten ' + str(99) + ' burritos.'

print(a)

I have eaten 99 burritos.