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:**

* String is the combination of characters defined within “” (e.g., “This is my thing”).
* Variable is kind of a holder which holds a value of any datatype (like int, string, float etc.)

3. Describe three different data types.

**Ans:**

1. Int: this contains numeric type of data. (e.g., 123, 3, 965 etc.)
2. String: this contains alphanumeric type of data (e.g., “Table”, “one”, “itr123” etc.)
3. Float: this contains decimal values (e.g., 123.45, 45.76, 86.45 etc.)

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

**Ans:** Expression is made up of operators and operands or we can say it is the combination of values and operators. Expression is used to produce new value.

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

**Ans:** Expression is the combination of operators and values which is interpreted by compiler to generate new value as opposed to, “statement” is a single line of execution which doesn’t return anything.

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

bacon = 22

bacon + 1

**Ans:** 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?

**Ans:** In Python, there are some rules to define a variable name, according to this, a variable name can’t start with numeric value that’s why eggs is valid variable name while 100 is invalid.

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

Ans:

1. int(): this is used to get Integer number from value
2. str(): this is used to get string from value
3. float(): this is used to get floating-point number from value

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

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

**Ans:** Python is strongly typed languages which doesn’t allow addition of string and integer value. We can fix it by modifying the type of Integer value to string value.

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