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.

\* - Expressions

'hello' - Values

-87.8 - Values

- - Expressions

/ - Expressions

6 - Values

2. What is the difference between string and variable?

**Ans:** A string is a datatype which is represented by a set of characters and is kept within a double or single quote. Ex: “Hello” ‘Hi’.

Variables are reserved memory location which holds a value. Ex: a=5. Here a is a variable which holds value of 5

3. Describe three different data types.

**Ans:**

1. Integer: Integer is a datatype which is assigned to variables holding integer values. Ex: int a =5, int c=6.
2. String: String is a datatype which are assigned to variables storing a sequence of characters. Ex: str a = “Hello Everyone”
3. Floating Point: This datatype is used to designate values with decimal values. Ex: Float a =4.0, Float b=7.8
4. What is an expression made up of? What do all expressions do?

**Ans:** An Expression is a combination of variables, operators and functions which are needed to be evaluated.

In Python, all expressions are needed to be evaluated once it is executed.

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

**Ans:** In the assignment statement spam=-10 it is instructed to store the value -10 to the variable ‘spam’.

An expression always gives evaluation while a statement is a set of instruction provided to the system.

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

bacon = 22

bacon + 1

**Ans:** 23

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:** eggs is valid because it is starting with alphabets while 100 is invalid because 100 is starting with a digit which is not accepted as a variable name.

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

**Ans:** integer – int()

floating-point number- float()

String – str()

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

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

**Ans:** This expression shows error as 99 is integer and other statements are string and it is not able to concatenate int and string.

We can remove the error by converting 99 from integer to string.