**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.**

\* - multiplication operator

'hello' – Values

-87.8 - Values

- Subtraction operator

/ Division operator

* Addition operator

6 – Values

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

A Variable is a store of information and it is a name that can refer to any value, whereas a string is a value representing text, and it is a type of information you would store in a Variable enclosed in a single or double quotation marks.

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

1. Numeric: data type represent the data which has numeric value. Numeric value can be integer, floating number or even complex numbers. These values are defined as int, float and complex class in Python.

2. Sequence: it is the ordered collection of similar or different data types. Sequences allow storing multiple values in an organized and efficient fashion. There are several sequence types in Python- String, List, and Tuple

3. Boolean: Data type with one of the two built-in values, True or False. Boolean objects that are equal to True are true, and those equal to False are false. But non-Boolean objects can be evaluated in Boolean context as well and determined to be true or false. It is denoted by the class bool.

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

An expression is made up of operators and operands, generally all expressions combine or produce some other value

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

An expression is a combination of values and functions that are combined and interpreted by the compiler to create a new value, where as statement is just a standalone unit of execution and doesn't return anything.

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

bacon = 22

bacon + 1

bacon contains 22 itself since we have not assigned the updated value to the bacon it stays as it is

**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?**

Because 100 is purely numerical value, since a variable name must start with a letter or the underscore character its name cannot start with a number.

**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.'

Because we are concatenating the strings with integer that we cannot do, only concatenation of similar data types is possible, we can fix this by converting 99 to string

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