**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?**

String is a datatype for a sequence of characters whereas variable is the reference that are used to refer any of the datatype, i.e., a variable can store string but vice versa is not true.

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

Integer: positive and negative Whole numbers

Bool: truth values that represent true or false

string: text, i.e., anything between “…” becomes string

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

An expression can be made up of values, variables, operators, method call. Expressions are used to evaluate a single value. Ex. Printing the sum of two numbers in terminal.

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

A statement is a instruction used to assign a value which is calculated/evalued using expression. Ex. C=a+b

An expression can be made up of values, variables, operators, method call. Ex. a+b

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

**bacon = 22**

**bacon + 1**

bacon value will not change because we have not altered the value of bacon till now. It will contain 22 .

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

**'spam' + 'spamspam'** = ‘spamspamspam’

**'spam' \* 3** = ‘spanspanspan’

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

According to restrictions from python a variable name can not begin with a number

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

int(), float(),str() respectively.

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

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

This expression will cause an error because 99 is a integer and it is trying to concatenate with string type values which is not possible. We can fix this by either converting 99 in string (str(99)) or just writing 99 in quotes will be also convert it into string type(‘99’).