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.

\*

'hello'

-87.8

-

/

6

**Ans. Mathematical operators = \* , - , / , +**

**Values are ‘hello’ (String)**

**-87.8 (float)**

**6 (integer)**

2. What is the difference between string and variable?

**Basically Variable is the place that stores a value or we say**

**container that stores a Value.**

**While String is a Sequence of characters.**

**Strings are immutable and denoted by single or double quotes.**

3. Describe three different data types.

**Three Different Data Types are as follows:**

1. **Integers**
2. **Floats**
3. **Strings**
4. What is an expression made up of? What do all expressions do?

**An expression is value or we say combination of values and operators that end up being a value.**

**All expressions evaluate (i.e Reduce or End up of being ) to a Single value.**

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

**An Expression evaluates to A Single Value while Statement dose not.**

**Statement is a group of Expressions.**

**In Above Example,**

**Spam , = and 10**

**all are having a unique and meaningful value they all are expression but if we take all them together then we have a Statement.**

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

bacon = 22

bacon + 1

**After running the code,**

**bacon variable now having value of 20.**

**Bacon + 1 is a expression and it will not change value of bacon to 22+1 = 23**

**It can change to 23 but for that we need assignment statement as bacon = bacon + 1**

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

'spam' + 'spamspam' **= 'spamspamspam'.**

'spam' \* 3 **= 'spamspamspam'.**

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

**Egg is a valid variable as variable starting with alphabet**

**While 100 is a Number (integer) and variable cannot starts with 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() are the three functions will evaluate to the integer, floating-point number, or a string version of the value passed to them.**

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

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

**The expression cause an error because 99 is an Integer and rest are strings.**

**Only strings are concatenated with other strings with + operator**

**So the correct way to fix this is as follows:**

**‘I have eaten’ + str(99) + ‘burritos’**