**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.**

\* :- when we run \* without any cotes than it is surely going to give us a syntax error

'hello' – It is the string datatype so it will be value

-87.8 - It is a float datatype so it will be value

- :- Minus is the arithmetic operator so it will be an expression

/ :- Division is the arithmetic operator so it will be an expression

* :- Addition is arithmetic operator than it will be expression

6 :- It is integer than it is a value

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

**Variable:-** It is a kind of container where you can store data from different datatype for example int, float, string, bool, complex numbers etc….

**String:-** String is a kind of datatype which stores majorly stores characters or collection of characters may be a sentence as well.

e.g. a = “Ram is a good boy.”

If we use single or double cotes to integer or float datatype than it is also considerd as a string datatype.

e.g. a = “12”

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

1) Integer (int) :- This is the datatype which stores integer type of data. The memory occupied by the integer datatype is 4 bytes or 32 bits.

2) Float :- Float is the kind of datatype which stores the decimal values. The memory taken by float datatype is also 4 bytes.

3) Boolean(bool) :- This datatype stores Boolean values.

e.g. true or false , 1 or 2

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

**Ans:-** An expression is made up of variables operators and method invocations which are constructed according to the syntax and rules of the specific language looking for the single value.

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

**Ans:-** Expression is made up of the values, operators, container and mathematical operations where as statement is like a command than python executes.

**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' :- The output of the term is ‘spamspamspam’ because it is the concatenation operation.

'spam' \* 3 – The output of the programme is also ‘spamspamspam’ here just you are using \* operator to concatenate it.

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

In python variable name is always started from the character no matter whether you are using any number in it or not but it should always start with a character.

Here 100 is the invalid name just because of this reason and eggs is a valid one because it starts with character.

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

Int(), float(), str() are the three functions which are used to get the integer, float and a floating point number.

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

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