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.

**\* - An expression**

**'hello' - value**

**-87.8 - value**

**- -An expression**

**/ - An expression**

* **- An expression**

**6 - Value**

2. What is the difference between string and variable?

**Variable is name of the location which can be stored in primary memory of system.**

**Variable can be any type of values, example integer, string, list, tuple, set and dictionary.**

**String is the type of variable, value that assigned inside the quotes.**

3. Describe three different data types.

**Boolean:** True and False, these two values are build-in values in Boolean data type.

**Sequence type:** String, list and tuple are several sequence data type in python. Sequence allows storing multiple values in an organised and efficient fashion.

**Dictionary:** Dictionary is an unordered collection of data values. Dictionary holds key-value pairs. Dictionary can be created by placing a sequence of elements within {} and separated by comma.

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

**Expressions are a combination of operators and variables that is interpreted to produce some other value. We have many different expressions in python. They are Arithmetic expressions, Logical expressions, bitwise expressions.**

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

**An expression always evaluate to a value. A statement does something, like creating a variable or displaying a value, it only does whatever the statement says.**

**Here, “ spam = 10 “ creating a variable. It’s a statement.**

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

bacon = 22

bacon + 1

**23**

**>>> bacon = 22**

**>>> bacon + 1**

**23**

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

'spam' + 'spamspam' **output is 'spamspamspam'**

'spam' \* 3 **output is 'spamspamspam'**

**>>> 'spam' + 'spamspam'**

**'spamspamspam'**

**>>> 'spam' \* 3**

**'spamspamspam'**

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

**Yes, because variable name should not begin with integer/numbers. Variable name can be eggs100.**

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

**Int() float() and str()**

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

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

**We can only concatenate str (not "int") to str.**

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