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.) Values = 'hello' , -87.8, 6

      Expressions = * , - , / , +

2. What is the difference between string and variable?

Ans.) A string is a datatype that is basically an array of Unicode characters. Eg. - 'abcdeF*'

3. Describe three different data types.

Ans.) **List** - Sequence data type , used to store the collection of data . They are iterable, mutable and can contain different datatypes in them. Denoted by [] .

String - Arrays of bytes representing Unicode characters. They are put in single/double quotes. They are immutable and iterable.

Integers- represented by int class, Contains positive or negative whole numbers.

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

Ans.) An expression is made up of variables,operators and constants ,that is interpreted to produce some value

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

Ans.) In programming language terminology, an "expression" is a combination of values and functions that are combined and interpreted by the compiler to create a new value, as opposed to a "statement" which is just a standalone unit of execution and doesn't return anything. One way to think of this is that the purpose of an expression is to create a value (with some possible side-effects), while the sole purpose of a statement is to have side-effects.

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'

'spam' * 3

Ans.)term1= spamspamspam , term2 = spamspamspam

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

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

Ans.)Because in python , a variable name must start with a letter/underscore character.

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

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

Ans.) 99 is an int datatype and other two are string datatypes and python can't concatenate two different datatypes .

So in order to concatenate them we need to put 99 in quotes to convert it to a string.

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