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

Answer: Expressions are \*, -, / and + and Values are -87.8 and 6.

2. What is the difference between string and variable?

Answer: A Variable is a store of information, and a String is one of a type of information you would store in a Variable. Variables do not need to be declared with any particular *type*, and can even change type after they have been set. A String is usually words, enclosed with " “Example:  X = "Welcome to ineuron”, X is the Variable, and we declared it as a String

3. Describe three different data types.

Answer: Integer, String, Float, Tuple, List

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

Answer: An expression is a combination of values and operators. All expressions evaluate (that is, reduce) to a single value.

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

Answer: 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” like spam =10 which is just a standalone unit of execution and doesn't return any new value.

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

bacon = 22

bacon + 1

Answer: bacon = 23

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

'spam' + 'spamspam'

'spam' \* 3

Answer: 'spam' + 'spamspam' is 'spamspamspam’, ‘spam' \* 3 = 'spamspamspam'

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

Answer: “Variable names cannot begin with a number since integer is immutable”

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

Answer: The int(), float(), and str() functions will evaluate to get the integer, floating-point number, and string versions of the value passed to them.

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

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

Answer: The expression causes an error because 99 is an integer, and only strings can be concatenated to other strings with the + operator. The correct way is 'I have eaten ' + str(99) + ' burritos.' which will give 'I have eaten 99 burritos.'