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 – Value is ‘hello’ , -87.8, and 6

Expression is \*, -, /, +

2. What is the difference between string and variable?

Ans - A variable is basically the name of the location in the primary memory of our computer. This can be chosen by us. A variable can store everything from strings to numbers.

A string is the values inside the quotes assigned to a string.

A variable can hold a string, but a string can't hold a variable

3. Describe three different data types.

Ans – 1 . Numbers: The Number data type is used to stores numeric values.

2. String: The string data type is used to stores the sequence of characters.

3. List: List data type is used to store the collection of different data types of elements, and it is mutable.

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

Ans -An expression is a combination of values and operators. All expressions evaluate (that is, reduce) to a single value. And there is 6 types of expression

1. Constant Expressions
2. Integral Expressions
3. Floating Expressions
4. Relational Expressions
5. Logical Expressions
6. Arithmetic Expressions

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

Ans - An expression evaluates to a single value. A statement does not.

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

bacon = 22

bacon + 1

Ans - The bacon variable is set to 22. The bacon + 1 expression does not reassign the value in bacon (that would need an assignment statement: bacon = bacon + 1)

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

'spam' + 'spamspam'

'spam' \* 3

Ans - Both expressions evaluate to the string 'spamspamspam'

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

Ans - Variable names cannot begin with a number.

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

Ans - The int(), float(), and str() functions will evaluate to 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.'

Ans - 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.'.