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.

\* => Expression

'hello' => Value

-87.8 => Value

- => Expression

/ => Expression

* => Expression

6 => Value

2. What is the difference between string and variable?

Variables are symbols that you can use to store data in a program. But String is a Sequence data type.

3. Describe three different data types.

Numeric

represents the data that has a numeric value. Different types of Numeric datatypes are: int, float, complex

Sequence

The sequence Data Type in Python is the ordered collection of similar or different data types. Different types of Sequence datatypes are: String, List, Tuple

Boolean

Data type with one of the two built-in values, True or False.

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

Expression is a combination of variables, operations and values that yields a result value.

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

Statements represent an action or command.

Expression is a combination of variables, operations and values that yields a result value.

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

bacon = 22

bacon + 1

23

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

'spam' + 'spamspam' ---------- 'spamspamspam'

'spam' \* 3 --------------- 'spamspamspam'

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

As per rule a variable name should be as below:

1. A variable name must start with a letter or the underscore character.
2. A variable name cannot start with a number.
3. A variable name can only contain alpha-numeric characters and underscores (A-z, 0-9, and \_ )

Here eggs satisfy all the conditions but 100 is integer and as per 2nd rule it cannot be a variable name.

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.'

'I have eaten ' + str(99) + ' burritos.'