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: Values -> **'hello', 87.8,6**

Expressions -> - , / , +

2. What is the difference between string and variable?

Answer: Variable is the name of a place in the computer's memory which can store a data type like string, dictionary, tuple etc.

A String is a variable that contains a string of characters enclosed in single or double quotes.

3. Describe three different data types.

Answer: Numeric- Numeric data types are those that has data in numeric form like integers, floats, complex number etc

Sequence- Sequence is an ordered collection of homogenous and heterogenous data types, like list, string, tuple etc

Boolean - This is a data type with two type of built in values, True and False,

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

Answer: Expression is a combination of operator, variables and constants which evaluates the combination and returns a type of boolean, integer or constant value.

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

Answer: An expression is a combination of operators, constant and variable which returns a type of boolean, integer or constant value. Whereas a statement actions a command like printing a value or assigning a value.

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

bacon = 22

bacon + 1

Answer: 23

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

'spam' + 'spamspam'

'spam' * 3

Answer: 'spamspamspam'

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

Answer: A variable name must start with a letter or underscore in python, Hence 100 is invalid

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

Answer: int(), str() and float()

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

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

Answer: This returns an error because 99 cannot be concatenated with string type , only str can be concatenated with str, The 99 has to be type casted to string object first.

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