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.

\* is a operator

'hello' is a value

-87.8 is a value

- is a operator

/ is a operator

* Is a operator

6 is a value

2. What is the difference between string and variable?

String is a value representing text , but variable is a basic unit of storage in a program, variable is a name that can refer to any value.

3. Describe three different data types.

a) Numeric: Numeric data type represents the data which has numeric values. Numeric values can be integer, float and complex numbers.

b) Sequence: Sequence is the ordered collection of similar or different data types. There are several sequence type in python like strings, List and Tuple.

c) Boolean: Boolean data type is the ones with two built in values, True or False.

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

Expression is made up of combinations of values, variables, operators and functions.

Expressions combine the values and operators performs numeric/logical operations and prints/outputs single value

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

A statement is an instruction the python interpreter can execute.

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

bacon = 22

bacon + 1

22

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

'spam' + 'spamspam'

'spam' \* 3

String 'spamspamspam'

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

Variable names cannot be a number, numbers can be used in variable name but a number cannot be used a variable name.

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

Int() for integer

Float() for float

Str() for string

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

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

The data types are different, here we are trying to concatenate ‘string’ with ‘integer’ that’s the reason we are having TypeError.

By converting the data type of integer(99) into string we can fix the issue.

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