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?

String: is class object that contains characters only.

Meanwhile variable: is a pointer which can hold any data type objects like integer, float, classes …etc.

3. Describe three different data types.

1. Integer: it points at integer numbers only.
2. List: it contains array of multiple different data type objects.
3. String: which hold array of characters.

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

Expressions made of variables and calculations, and do return a value in the end.

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

The statements are commands to be executed unlike expressions return values.

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

bacon = 22

bacon + 1

will contains: 22

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

'spam' + 'spamspam'

Out: ‘spamspamspam’

'spam' \* 3

Out: ‘spamspamspam’

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

Because variable name can’t start with number or named after python syntax, in this case ‘100’ is total integer number so it’s invalid unlike ‘eggs’ have unique name.

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

* int()
* str()
* float()

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

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

Because we can’t add two different data types together [string + integer + string].

To add (concatenate) strings we should convert the integer value to string as follow:

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