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.

\* = Mathematical Operator

'hello’ = Value

-87.8n = Value

- = Mathematical Operator

/ = Mathematical Operator

* = Mathematical Operator

6 = Value

2. What is the difference between string and variable?

A Variable is a store of information, and a string is a type of information would store in a variable

3. Describe three different data types.

Integers

Ex: 2034 (whole numbers)

Floats

Ex: 2.45 (Decimal numbers)

Booleans

Ex: True, False (Truth values that represent Yes/No)

Lists

Ex: [1,2,3,4] (A collection of data, that sits between [])

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

An expression is a combination of operators and operands that is interpreted to produce some other value. In any programming language, an expression is evaluated as per the precedence of its operators.

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

Expression is made up of values, containers, and mathematical operators (operands) and the statement is just like a command that a python interpreter executes like print.

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'

'spam' \* 3

Both expressions evaluate to the string ‘spamspamspam’

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

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?

Int(), float(), str()

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

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

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.’