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 (string)

-87.8 – value (float)

- – expression

/ – expression

* – expression

6 - value (integer)

2. What is the difference between string and variable?

String is a value that has a type “str” and is also mentioned within quotes.

A variable is something that can store a value such as integer or float or string etc.

3. Describe three different data types.

Int – integer value ( it is a data type that has no decimal point and ranges from – value to + value)

Float- Floating point (it is a data type that has a decimal point or contains fractional value. It also ranges from -float to + float)

## String – string value( it is a series of characters that stores text)

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

An expression is an instruction that combines multiple values such as operators and values and evaluate down to a single value.

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

Its opposite to an expression. A statement is something where we assign a value to a variable or say while True, they are call statements which expression is like a = 10 + 20 and they add to a single value 30. This is called expression.

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

bacon = 22

bacon + 1

if run on jupyter notebook. It will provide 23 for bacon. While on any IDE, it will if provided bacon = bacon + 1 and then print(bacon) it will provide value as 23 for bacon.

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?

A variable name cannot start with a number and should only start with character or underscore

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.'

A string cannot be concatenated with integer

This has to be converter to

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