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.

Ans.

\* Expression

'hello' Value

-87.8 Value

- Expression

/ Expression

* Expression

6 Value

2. What is the difference between string and variable?

Ans. Variable is a memory location for a data type. String is a type of data.

3. Describe three different data types.

Ans. String - string is a sequence of charectors which is immutable.

Integer – Integer is a mathemetical value with no decimal point and can do mathematical operations.

list – this is used to store multible values in a single variable.

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

Ans. Expression contains operators, values. Expression can be used to evaluate a mathematical operation. For example, 3 + 2 is an expression which will give us 5 as an output.

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

Ans. Expression contains operators, values an return a value.

Statement never returns a vlaue. Some of the examples are conditional statement, assignment statement. ‘spam = 10’ is an assignment statement.

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

bacon = 22

bacon + 1

Ans. Bacon will be 22 because bacon + 1 is not updated in the bacon variable. So the value of bacon remains the same.

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

'spam' + 'spamspam'

'spam' \* 3

Ans. 1st item) ‘spamspamspam'

2nd item ‘spamspamspam’

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

Ans. Eggs is a vairiable because it’s a string but varibale cannot begin with a number hence 100 is not a variable.

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

Ans. int() to get integers, float() to get floating-point number and str() to get string.

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

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

Ans. 99 is an integer. We cannot operate on different data types. To fix this we need to change 99 to string:

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