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.

\*

'hello'

-87.8

-

/

6

**Answer: - Expression: - \*, -, +, /**

**Values: - ‘hello’, -87.8, 6**

2. What is the difference between string and variable?

**Answer: - Strings always start and end with quotes. In variable no quotes required.**

3. Describe three different data types.

**Answer: - Integers, Floating-point numbers & strings.**

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

**Answer: - An expression is a combination of values and operators. All expressions evaluate to a single value.**

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

**Answer: - An expression evaluates to a single value. A statement does not.**

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

bacon = 22

bacon + 1

**Answer: - The bacon variable is set to 22. The bacon +1 expression does not reassign the value in bacon (that would need an assignment statement: bacon = bacon+1)**

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

'spam' + 'spamspam'

'spam' \* 3

**Answer: - Both expressions evaluate to the string ‘spamspamspam’**

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

**Answer: - 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?

**Answer: - The int(), float() and str() functions will evaluate to the integer, floating-point number & string versions of the value passed to them.**

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

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

**Answer: - 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.’.**