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** - A String is a type of information you would store in a Variable. A String is usually words, enclosed with "".

**Variable** - A Variable is a store of information.

3. Describe three different data types.

**String** - A string is a collection of one or more characters put in a single quote, double-quote or triple quote.

**Tuple** - Tuple is an ordered collection of Python objects. The only difference between tuple and list is that tuples are immutable i.e. tuples cannot be modified after it is created.

**List** - List is a ordered collection of data. It is very flexible as the items in a list do not need to be of the same type.List is represented using square brackets[].

**Integers** - It contains positive or negative whole numbers (without fraction or decimal).

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.

Expressions will be mathematical operators.

Operators: Operator:

+ and

– or

\* not

/

//

%

\*\*

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

An expression evaluates to a single value. A statement does not.

Statements represent an action or command e.g print statements, assignment statements.

Expression is a combination of variables, operations and values that yields a result value.

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

bacon = 22

bacon + 1

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

'spam' + 'spamspam'

'spam' \* 3

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

Because variable names cannot start with a number.

A variable name must start with a letter or the underscore character.

A variable name cannot start with a number.

A variable name can only contain alpha-numeric characters and underscores (A-z, 0-9, and \_ ).

Variable names are case-sensitive (age, Age and AGE are three different variables).

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

The int() , float() , and str( ) functions will evaluate to the integer, floating-point number, and 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.'

This expression causes an error because a str can only concatenate to str (not "int") .

We can fix it by converting the integer value into a string.(By putting double or single quotes to the integer value).