1. In the below elements which of them are values or an expression? e.g.: - values can be integer or string and expressions will be mathematical operators.

\*,'hello’, -87.8, -, /, +,6

* Values - ‘hello’, -87.8, 6
* Expression - \*, -, /, +

2. What is the difference between string and variable?

* String is always enclosed within quotes while variable isn’t.
* Variable can store values and string cannot.

3. Describe three different data types.

* Number type:
  + Int – this data type holds whole numbers positive or negative.
  + Float - It is a real number with floating point representation.
  + Complex -This Python Data type holds a complex number. For example, a+bj. Here, a and b are the real parts of the number, and j is imaginary.
* Sequence type:
  + String – A string is a collection of one or more characters enclosed within quotes.
  + Tuples – Tuple is an ordered collection of python objects. Tuples are immutable.
  + List – List is an ordered collection of data. Lists are mutable.
* Boolean:
  + Boolean data type holds True or False as values.

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

* An expression is made up of values and operators which can be further solved to get a single value.

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

* An expression can be reduced to a single value while statement is an action or command e.g.: -print statement, if statement.

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

bacon = 22

bacon + 1

* The variable bacon still contains the value 22 because ‘bacon + 1’ does not re-assign the value to the variable. ‘bacon += 1’ this code shall re-assign the value to variable.

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

'spam' + 'spamspam'

'spam' \* 3

* Output for both terms will be ‘spamspamspam’.

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

* Variable name cannot start with a integer.

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

* int () – to get the integer version of a value.
* float () – to get the floating-point number of a value.
* str () – to get the string version of a value.

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

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

* The error is caused because string and integer type cannot be concatenated.
* To resolve the error string format of the integer be concatenated.
* 'I have eaten ' + str (99) + ' burritos.'