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: Values are 'hello'(String), -87.8(float) and 6(integer). Whereas expressions are *, -, /, + (Mathematical operators).

2. What is the difference between string and variable?

ANSWER: Variable acts as a container to store the value. String is a sequence of characters.

3. Describe three different data types.

ANSWER: Integer, Float and String.

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

ANSWER: Expression is a combination of values, variables, operators and calls to functions. In simple words it is combination of operands and operators. The expression in python tells the interpreter that something needs to be evaluated or calculated to produce a result. Eg: a=2*5+6 where 2,5 and 6 are operands and *,+ are operators.

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

ANSWER: An expression in python produces some value or result after being interpreted by python interpreter. Statement refers to an instruction/ or a set of lines to write the code for the python interpreter to execute. Expressions are statements as well. Eg: x=5+2 is an expression as well as a statement.

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

bacon = 22

bacon + 1

ANSWER: 22

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

'spam' + 'spamspam'

'spam' * 3

ANSWER: Both the terms provides the output as spamspamspam

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

ANSWER: Because a variable name can start with alphabets but not with digits.

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

ANSWER: int(), float(), str().

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

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

ANSWER: Because it contains two different types of data types i.e integer and string which is not possible. Only strings can be concatenated with other strings. The correct way be as shown below:

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