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' – (values)

-87.8 – (values)

- (expression)

/ - (expression)

* - (expression)

6 – (values)

2. What is the difference between string and variable?

Ans:

Variable: It is to store an information.

String: It is a type of information, which will be stored in a variable

3. Describe three different data types.

Ans:

Numeric datatypes are int, float, complex

Text datatypes are str

Sequence datatypes are list, tuple, range

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

Ans: An expression is made up of variables, operators and methods which are interpreted to produce some value. Based on the syntax of the language, it is evaluated as per its operators.

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

Ans: Expression is combinations of operators and operands, where as statement is assigning a value to a variable.

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

bacon = 22

bacon + 1

Ans: bacon value is incremented to 23.

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

'spam' + 'spamspam' - spamspamspam

'spam' \* 3 - spamspamspam

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

Ans: A variable should be a non-numeric. For example, a = 10. An integer cannot be a variable, if we try to use an integer as a variable it give syntaxerror.

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

Ans: int() function is used to convert a numeric string to integer. float() function and str()

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

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

Ans: We can only concatenate strings only. In the above expression 99 is integer. We can type cast the 99 and then concatenate.

‘I have eaten ‘ + str(99) + ‘ burritos.’

I have eaten 99 burritos.