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.

\* value

'Hello' value

-87.8 value

- expression

/ expression

* expression

6 value

2. What is the difference between string and variable?

Variable is storage place or memory location for any date type. String is data type that can be assigned to a variable.

3. Describe three different data types.

1. Integer - numerical values without decimal points that can be operated mathematically.
2. Char - integers, alphabets, symbols , space that cannot be operated mathematically.
3. String - set of characters that is immutable.

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

Expression is a sequence of operands and operators. They are representations of values. Example - In “a+b=c”, “a+b” is an expression that yields the result c , where a,b, c are values.

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

An expression evaluates to a value. A statement does something such as representing an action or command e.g print statements, assignment statements. The above example “spam=10” is a statement.

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

bacon = 22

bacon + 1

Ans: bacon = 22

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?

A variable name needs to be a combination of letters, symbols and numbers and should not begin with a number. So eggs is a valid variable name and so is eggs100 or \_100 but 100 and 100eggs are not valid variable names.

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

1. int()
2. float()
3. string()

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

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

Ans : The datatypes in this expression are different. 99 is an integer while rest are strings.

Correction : 'I have eaten ' + ‘99’ + ' burritos.'