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

Ans] From the above, \*,-,/,\* are the expressions and rest are values.

2. What is the difference between string and variable?

Ans] Variables are symbols that are used to store data whereas strings are data which can be used to fill in a variable.

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

'spam' + 'spamspam'

'spam' \* 3

Ans] The answers for the following two terms would be:

‘spamspamspam’

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

Ans] Any variable should start with an alphabet as per the rules ,therefore, eggs is a valid variable name whereas 100 is invalid.

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

Ans] The int() ,float() ,str() can be used to get the integer,floating-point or string version of a value.

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

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

Ans]As you cannot add two values of different datatypes, so because of this the above expression gives an error .The error can be fixed by by putting 99 into inverted commas thus it will get converted into string and the expression won’t give an error .

Output would be: 'I have eaten + 99 + burritos.'

7] After running the following code, what does the variable bacon contain?

bacon = 22

bacon + 1

Ans] The variable bacon contains value of 22.

8] What is an expression made up of? What do all expressions do?

Ans] The expression is made up of variables,operators and methods invocations , which give us a single value.

9]  Describe three different data types.

Ans] Boolean data type which gives output in the form of true or false, integer data type which represents all the whole numbers and Floating point data-type which contains all the decimal numbers.

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

Ans] In programming language terminology, an “expression” is a combination of values and functions that are combined and interpreted by the compiler to create a new value, as opposed to a “statement” which is just a standalone unit of execution and doesn't return anything.