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: -

(* - / +) are expression and ('hello' -87.8 6) are values.

2. What is the difference between string and variable?

Ans: -

String is a data type whereas variables are the named memory locations which holds the data of any particular data type.

3. Describe three different data types.

Ans: -

Integer: All the positive and negative numbers.

String: It is a series of characters.

Float: Any number with a decimal point

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

Ans: -

Expression is made up of one or more values or operators that are combined together to produce a new value.

Expression can be used to perform a task such as performing calculations or evaluation of conditions etc.

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

Ans: -

An expression is a combination of values, variables, operators that produce a new value. But a statement is a complete line of code that performs some action. Here assignment of 10 to a variable spam (spam = 10) is a statement.

6. After running the following code, what does the variable bacon contain?
bacon = 22
bacon + 1

Ans: -
The variable bacon will contain 22. As it was not updated by the expression 'bacon+1', it was only evaluated and not assigned with the new value.

7. What should the values of the following two terms be?
'spam' + 'spamspam'
'spam' * 3

Ans: -
'spam'+'spamspam' = spamspamspam
'spam'*3 = spamspamspam

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

Ans: -
eggs is a valid variable name because it does not start with a number or any special character '_' exceptional. Whereas 100 starts with a number, which is not allowed.

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

Ans: -
int(), float() and str()

10. Why does this expression cause an error? How can you fix it?
'I have eaten ' + 99 + ' burritos.'

Ans: -

This expression causes an error because we're trying to add string values to an integer value.
We can fix it by enclosing 99 in quotes. 'I have eaten' + '99' + 'burritos.'