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 expressions.

'hello', -87.8, 6 are values.

2. What is the difference between string and variable?

ans. A Variable is something where we can store information/data, and a String is a type of information/data that can be stored in a Variable.

3. Describe three different data types.

ans. Integers, floating-point numbers, and strings.

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

ans. An expression is made up of variables, operators, and method invocations, which are constructed according to the syntax of the language, that evaluates to a single value.

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

ans. An expression evaluates to a value. A statement does something.

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

bacon = 22

bacon + 1

ans. The bacon variable is set to 20. The bacon + 1 expression does not reassign the value in bacon (that would need an assignment statement: bacon = bacon + 1)

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

'spam' + 'spamspam'

'spam' * 3

ans. Both expressions evaluate to the string 'spamspamspam'

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

ans. Because variable names cannot begin with a number.

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

ans. The int() , float() , and str( ) functions will evaluate to the integer, floating-point number, and string versions of the value passed to them.

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

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

ans. The expression causes an error because 99 is an integer, and only strings can be concatenated to other strings with the + operator.

The correct way is I have eaten ' + str(99) + ' burritos.