Q1.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.

Ans.

(expression)

'hello' (value - string)

-87.8 (value - float)

(expression - mathematical operator)

/ (expression - mathematical operator)

(expression - mathematical operator)

6 (value - integer)

Q2.What is the difference between string and variable?

Ans.

A string is a sequence of characters enclosed within quotation marks, while a variable is a name given to a value or an object in a program.

Q3.Describe three different data types.

Ans.

Three different data types are:

Integer: represents whole numbers

Float: represents decimal numbers

String: represents a sequence of characters

Q4.What is an expression made up of? What do all expressions do?

Ans.

An expression is made up of values, variables, and operators. All expressions evaluate to a value.

Q5.This assignment statements, like spam = 10. What is the difference between an expression and a statement?

Ans.

An expression is a piece of code that produces a value, while a statement is a line of code that performs an action, such as assigning a value to a variable.

Q6.After running the following code, what does the variable bacon contain?

bacon = 22

bacon + 1

ans.

The variable bacon contains the value 22, because the expression "bacon + 1" does not change the value of bacon.

Q7.What should the values of the following two terms be?

Ans.

'spam' + 'spamspam'

'spam' \* 3

The value of both terms is the same: 'spamspamspam'

Q8.Why is eggs a valid variable name while 100 is invalid?

Ans.

Eggs is a valid variable name because it consists of alphabetic characters and/or underscores, while 100 is invalid because it starts with a number.

Q9.What three functions can be used to get the integer, floating-point number, or string version of a value?

Ans.

int() can be used to get the integer version of a value

float() can be used to get the floating-point number version of a value

str() can be used to get the string version of a value

Q10.Why does this expression cause an error? How can you fix it?

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

Ans.

This expression causes an error because you cannot concatenate a string and an integer. You can fix it by converting the integer to a string using the str() function, like this:

'I have eaten ' + str(99) + ' burritos.'