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.

\* expression

'hello' values

-87.8 values

- expression

/ expression

* expression

6 values

2. What is the difference between string and variable?

a string is any value located between quotation marks, whether it's a single double or triple quotation mark used to represent text. e.g:

‘string’

“str1ng”

‘’’

string

str!ng

‘’’

“””

string

str!ng

“””

a variable is a location in memory used to store any value or type of data

3. Describe three different data types.

a string is any value located between quotation marks, whether it's a single double or triple quotation mark used to represent text

an integer is any number. It can be positive, negative, or zero without fractions or decimals.

float is used to represent real numbers and is written with a decimal point.

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

An expression is a combination of values and operators. All expressions evaluate to a single value.

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

an expression is a sequence or combination of values, variables, operators and function calls that always produces or returns a result value.

a statement is an instruction that the Python interpreter can execute such as assignment statement, while statements, for statements, if statements, and import statements.

the main difference between those two is that evaluation of an expression always produces or returns a result value. and the execution of a statement may or may not produces or displays a result value, it only does whatever the statement says.

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

bacon = 22

bacon + 1

23

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

'spam' + 'spamspam'

'spam' \* 3

two af them will give the same result ‘spamspamspam’

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

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?

to get the integer use int(), to get the floating-point use float() and to get the string use str()

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

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

because 99 is integer. we can fix it with several ways

1. ‘I have eaten’ + ‘99’+ ‘burritos.’
2. ‘i have eaten’ + str(99) + 'burritos.’