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:**

\* is a expression

'hello' is a value

-87.8 is a value

- is a expression

/ is a expression

+ is a expression

6 is a value

2. What is the difference between string and variable?

**Ans:**

The difference between string and variable is:

Variables are containers for storing data values and String is data,it is a sequence of characters

3. Describe three different data types.

**Ans:**

The different data types are:

Numeric: int, float, complex

Sequence Type: list, tuple, range

Boolean

Set

Dictionary

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

**Ans:**

An expression is a construct made up of variables, operators and method invocation that evaluates a single value. An expression is a combination of operators and operands that is interpreted to produce some other value.

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

Ans:

“Expression” is a combination of values and functions that are combined and interpreted by the compiler to create a new value, “statement” which is just a standalone unit of execution and doesn't return anything.

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

bacon = 22

bacon + 1

**Ans:**

The value in variable bacon will be 22 after running the code.

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

'spam' + 'spamspam'

'spam' \* 3

**Ans:**

'spam' + 'spamspam'

Value: spamspamspam

'spam' \* 3

Value: spamspamspam

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

**Ans:**

Because the 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.

To fix it:

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