**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’ : value

-87.8 : value

- : expression

/ : expression

+ : expression

6 : value

**2. What is the difference between string and variable?**

ANSWER: A String is a type of information that would be stored in a variable, which is a place where you can store information. Usually, a string is contained in quotes (" " or ' ').

Example,  x="Welcome to ineuron"

here, x is variable

and "Welcome to ineuron" is string.

By using (=) sign string is assigned to a variable

**3. Describe three different data types.**

ANSWER:

Integer data - used for whole numbers , ex. 7, 12, 999

Float data – used for number with a decimal point, ex.3.15, 9.06, 00.13

Boolean - used for representing logical values, ex. TRUE, FALSE

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

ANSWER:

Expressions are made up of values, variables, operators, and function calls. Expressions require evaluation. When we instruct Python to print a statement, the interpreter evaluates the statement and display the output result.

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

ANSWER:

whereas expressions can be assigned or used as operands. **Expressions produce a value, and that value will be passed into the function.**

Statements can only be declared **they don’t produce a value, and so they can't be used as function arguments**.

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

**bacon = 22**

**bacon + 1**

ANSWER:

bacon = 22 means 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**

ANSWER:

Both expressions evaluate to the string 'spamspamspam'

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

ANSWER: Because 100 is a number and 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?**

ANSWER: int() - integer, float() – floating point, and str() - string.

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

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

ANSWER: 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.'.