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' = string(value)

-87.8 = integer(value)

- expression

/ expression

* expression

6 = integer (value)

2. What is the difference between string and variable?

Ans – String is type of information which can be stored in a variable & variable is a stored information which can be changed

Eg. d = “this is ineuron”

Here d is variable and “this is ineuron” is string

3. Describe three different data types.

Ans. 1. Numeric – under this data type 3 types are there

1. Float – type of data which contains integers but with decimal eg 66.66
2. Integers – these are whole number with no fraction or decimals 45
3. Complex number – this are numbers which more than one in actual number and contain a complex algorithm and code eg 46 + 6j

2. Boolean = data type which has two values that is either true or false

3. Sequence type – these are of three types mainly

a. String - It is type of information which can be stored in a variable and can be later changed and altered

b. List – list can be a series of strings or numbers in single context which can be multiplied added with other list etc multiple items such as integers decimals etc can be stored in it

eg s = [("sudh"+"yash"),1,1,2,] uses square [] this

c Tuples – it is used to store multiple items in a single variable but data is not meant to be changed in first place in this contex it I different than list it is more secured than list

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

Ans. Expression is made up of variables ,operators and method which combine up to a certain value eg 5+5 = 10 so her 5+5 is an expression and 10 is an integer value

Expression does to get interpreted and shows the result or which a particular expression is used . An expression should be valid to give a correct evaluation

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

Ans. Expression is combination of values , variables, operators and calls , its needed to be evaluated to give a certain result python interprets an expression and displays result

Statement – It is an action or command which does a thing eg loops

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

bacon = 22

22

bacon + 1

23

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

'spam' + 'spamspam' = 'spamspamspam

'spam' \* 3 =

'spamspamspam'

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

Eggs can be demonstrated in a way which a coder want because we can create multiple variables through it as well as it can be equal to anything but 100 is an integer it contains a definite value

eggs = {1,1,1,1,1,1,1,1,1,1}

100 = {1,1,1,1,1,1,1}

**Input In [41]**

**100 = {1,1,1,1,1,1,1}**

**^**

**SyntaxError:** cannot assign to literal

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

int()

float()

str()

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

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

Ans. = because can only concatenate str (not "int") to str

Fix it by

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