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.

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'hello' :- value

-87.8:- value

- :- expressions

/ :- expressions

* :- expressions

6 :- value

2. What is the difference between string and variable?

Ans.:- **A Variable is a store of information, and a String is a type of information you would store in a Variable**. A String is usually words, enclosed with "" Eg String myStr ="Welcome to iNeuron" myStr is the Variable, and we declared it as a String, use the single = to assign the text to it.

**Variable is a empty box that you fill with some data or value**

3. Describe three different data types.

Ans.:-

**1. Python Numeric Data Type**

int - holds signed integers of non-limited length.

long- holds long integers(exists in Python 2.x, deprecated in Python 3.x).

float- holds floating precision numbers and it’s accurate up to 15 decimal places.

complex- holds complex numbers.

Example :-

a=100

print("The type of variable having value", a, " is ", type(a))

#create a variable with float value.

b=10.2345

print("The type of variable having value", b, " is ", type(b))

#create a variable with complex value.

c=100+3j

print("The type of variable having value", c, " is ", type(c))

**2. Python String Data Type**

The string is a sequence of characters. Python supports Unicode characters. Generally, strings are represented by either single or double-quotes.

Example :-

a = "string Example"

**3. Python List Data Type**

The list is a versatile data type exclusive in Python. In a sense, it is the same as the array in C/C++. But the interesting thing about the list in Python is it can simultaneously hold different types of data.

Example :-

b=["hello","john","How are you",12,14]

print(b)

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

Ans:- An expression is **a combination of operators and operands** that is interpreted to produce some other value. In any programming language, an expression is evaluated as per the precedence of its operators

Example :- x=25 # A Statement

x= x+10 # An expression

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

Ans:- An expression in Python is very different from statements in Python. A statement is not evaluated for some results. A statement is used for creating variables or for displaying values.

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

bacon = 22

bacon + 1

Ans.:- 23

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

'spam' + 'spamspam'

'spam' \* 3

Ans:- Both Are Same :- “spamspamspam”

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

Ans:- This is rule because 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:- We can concatenate int. We can do like this:-

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