**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:----->>>**

**'hello' ----> Value**

**-87.8 -----> Value**

**- -----> (sunstraction operator) Expression**

**/ -----> (division oprator)expression**

**+ -----> (Addition operator) expression**

**6 -----> Value**

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

**Ans :------->**

String : String is kind of data or any type of information.

Variable : use to store the data ( integer , string etc.)

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

**Ans :------->**

**1. String data types is a sequence of characters**

**str - contain the characters**

**2. Numeric data types: used to assign numeric values**

**int - holds signed integers**

**float - holds floating precision numbers**

**complex - contain complex numbers**

**3. Boolean data type: hold the boolean values 'True' and 'False'.**

**bool - 'True' , 'False'**

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

**Ans :------->**

**Expression is made up with input values and mathematical operators. By using expressions and input vaues we can get the output as per the mathematicla operator and function defined**

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

**Ans :------->**

**Statements are informations about the program or function or expressions , while expression is like a mathematicla expression where we provide input and get the output as per the operator.**

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

bacon = 22

bacon + 1

**Ans :------->**

**bacon=22 ## 22 valus is been assigned to the bacon variable**

**bacon+1 ##bacon variable been incremented by 1**

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

'spam' + 'spamspam'

'spam' \* 3

**Ans :------->**

**'spam' + 'spamspam' #this expression will concatenate both the string and provide the output after concatenation**

**'spam' \* 3 # it multiplies the string by 3 times will give the output with string written 3 times**

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

**Ans :------->**

**variable name can be started with character values but not with numbers, thats why eggs is valid variable while 100 is not**

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

**Ans :------->**

**a='123'**

**type(a) # this show the data type**

**type(int(a)) ## will change the data type of the values to integer**

**type(float(a)) # will change the data type of the values to float**

**type(str(a)) # will change the data type of the values to string**

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

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

**Ans :------->**

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

**# concatenation can be done on all interegers values or on all string values i.e on same data type**

**#correct format could be-->**

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