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.

\* -> It is an expression

hello -> It is a value

-87.8 It is a value

- -> It is an expression

/ -> It is an expression

+ -> It is an expression

6 -> It is a value

2. What is the difference between string and variable?

strings are type of data which can be stored in a variable and are enclosed in quotes ex = "Hello world"

and variables are a type of named container to store string values ex = First\_prg = "hello world" where First\_prg is a container or variable to store string.

3. Describe three different data types.

Sequence type = example = String,list, Tuple

Numeric data type = example = float,int,complex

Boolean = example = Bool Bool data type consists of True or false.

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

expressions contain values which can be int,float,numbers, string ext

also can contain variables to strore data

operators to perform mathematical operation which consists of arithmetic logical and comparision operators

expressions can -

assigin value to a variable

can perform mathematical operation

can compare given values

perform logical operations

return or print data as a form of output.

5. This assignment statements, like spam = 10. What is the difference between an

expression and a statement?

spam = 10 is a statement as it the value 10 is assigined to spam and does not return a value

an expression is a code which returns a value after evaluation on the other hand does not get evaluated for results

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

bacon = 22

bacon + 1

the variable bacon contains - bacon = 22

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

spam + spamspam

spam \* 3

if considered both are strings and both are enclosed in quotes the return value would be as follows

spam + spamspam - spamspamspam

spam \* 3 - spamspamspam

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

eggs is considered as a variable because in python variable name should start with a letter.

in python variable names can start with a letter followed by letters or number or underscores

on the other hand 100 it starts from a number which is not accepted as a variable.

9. What three functions can be used to get the integer, floating-point number, or string

version of a value?

1.str() it is used to convert a value to a string ex - str(10) will be converted to "10"

2. int() it is used to convert a value to integer ex - int(10.2) will be converted to 3

3. float() it is used to convert a value to float ex - float(10) will be convered to 10.0

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

I have eaten + 99 + burritos.

this expression causes an error because 99 is an integer, we cannot add two diffrent data types in python we have to convert 99 from int to a str

fixed code - I have eaten + str(99) + burritos.