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?

String is a data type with list of characters value given to a variable; Variable is which an identifier given to a particular variable.

3. Describe three different data types.

Integer: Integers are numbers which are non-decimal values .

Eg: 20,30,56,72

Float: Float are numbers with decimal values.

Eg: 20.0,52.8,45.78

Complex number: these are the values which has both string and numbers.

Eg: 2+3j (j might have some different values)

Boolean : this have only values as true or False ,1 or 0.

Eg: a = 0🡪 False

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

Expression is combination of operators and operands to produce a value .

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

Statement is an instruction that a python interpreter can execute.

Expression plays a role of an action which results some value.

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

bacon = 22

bacon + 1

Bacon = 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 defined to a value like 100 or any other digit, but 100 is a constant value which cannot be assigned to any other value.

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

For Integer🡪 int()

For Float 🡪 float()

For string 🡪 str()

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

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

Because 99 is a value, to fix this error 99 has to be defined as a string as follows.

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