**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
* 6 Value

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

String is a data type. “Hello” is a string.

Variable is a place holder where we can keep values of different data types.

my\_string = ”Hello”

Here variable named my\_string holds the string “Hello”.

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

Integer- supports the whole numbers num=2

Float- supports decimal numbers. num=2.0

Boolean – supports logical values True and False. Value=True

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

An expression is made up of an operator and its operands.

b = 5

c= 10

b + c # This is an expression. It gives a value 15

All expressions perform some operations and evaluate its value.

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

Expressions are values or executed to get values.

a = b + c

Statement indicates an action.

Spam =10 # This statement does not represent a value but does the action of assigning a value to variable Spam

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

**bacon = 22**

**bacon + 1**

The variable bacon contains 22.

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

**'spam' + 'spamspam'**

**'spam' \* 3**

The values for both expressions are the same: spamspamspam

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

100 is invalid because a variable name cannot start with a number. The variable name eggs is valid because it obeys the rules of naming a variable in Python like,

* A variable name must start with a letter or\_
* A variable name cannot start with a number
* A variable name can only contain (A-z, 0-9, and \_ )

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

x = int(3)    # x will be 3

y= float(3)  #y will be 3.0

z = str(3)    # z will be '3'

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

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

The concatenation operator + can only concatenate str (not "int") to str.

It can be fixed as follows by changing 99 to a string.

'I have eaten ' + '99' + ' burritos.'