1. What are the differences between operators and values in the following?

\* 🡺 Multiplication operator

'hello' 🡺 String value

-87.8 🡺 Float value

- 🡺 Subtract operator

/ 🡺 Division operator

+ 🡺 Additional operator

6 🡺 Int value

Operators do the operations between two values or variables for its intended designed purpose. Eg: Arithmetic operators like +, -, \* / etc, and Boolean operations like & and |.

Variables are used to store different values like integers, floating and chars/strings. The values are the stored values at that instant like integers, float and strings. This is nothing but the data we get from different industries where we do lot of data mining, prediction etc.

2. What is the difference between string and variable?

Spam 🡺 Variable name

'spam' 🡺 Strig value with quotes

String is a type of data where alphanumerical values will be there. Variable is a name of identifier for the programming language to store a values like integer, floats, strings or Boolean values.

3. Describe three different data forms.

* Integer 🡺 It has whole numbers whether possible or negative values.
* Float 🡺 Real numbers or decimal numbers
* String 🡺 Alpha numeric values

4. What makes up an expression? What are the functions of all expressions?

* Expression is a combination of variables, constants, and operands/operators to carry some function like arithmetic operations or assignment operation.

Eg: a = 20

b = 30

c = 40

d = a+b/c

5. In this chapter, assignment statements such as spam = 10 were added. What's the difference between a declaration and an expression?

Declaration is to declare a variable with an assigned value like spam = 10

Expression is to do any operations like b + c, 10 – 20 using more than one variable or value.

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

bacon = 22

bacon + 1

22

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

'spam' + 'spamspam' 🡺 ‘spamspamspam’

'spam' \* 3 🡺 ‘spamspamspam’

8. Why is it that eggs is a true variable name but 100 is not?

Variable name should start with alpha character or under score.

9. Which of the following three functions may be used to convert a value to an integer, a floating-point number, or a string?

We can use the type casting to convert value to integer.

Examples:

int(‘10’)

float(’20.2’)

str(10)

10. What is the error caused by this expression? What would you do about it?

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

We do not have the merging of the strings with integer value. We need to convert the 99 also to integer to carry out the above expression like below:

'I have eaten ' + str(99) + ' burritos.'

Or

'I have eaten ' + ‘99’ + ' burritos.'