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

\* : It is a multiplication operator

'hello' : It is a string constant

-87.8 : its is a floating point constant

- : It is a subtraction operator

/ : It is a division operator

+ : It is an addition operator

6 :it is an integer constant

2. What is the difference between string and variable?

Spam : It coutl be name of the variable which can store value with any datatype. It could be name of a variable of type list, set, tuple, dictionary etc.

'spam' : It is a string contant

3. Describe three different data forms.

I understand the term data forms as types of data.

The data types could be integer, character, float, double, string, complex numbers. Integers hold values of subset of the natural numbers. Float and doubles hold values of subset of real numbers. String could be any alphanumeric group of characters. Complex numbers consist of two parts real and imaginary.

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

Any action specified in algorithm (Logic of the program) converted into computer programming language form is called as na expression. Expressions could be the declaration, assignment, logical, arithmetic, conditional and relational.

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

Firstly I would say the question is not pretty much clear. Still I try to answer the question according to the way I have interpreted it.

Whenever a variable is declared, not necessarily the memory gets assigned to the variable but when the assignment expression is given like in the question it is specified spam =10, in this case the memory gets allocated to the variable and value 10 gets stored in it.

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

bacon = 22

bacon + 1

After running the code the value of bacon will be 22.

because after addition the value is not assigned to the variable

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?

The name of the variable should always start with an alphabet. So egg is a valid name of the variable and as 100 does not start with an alphabet its invalid variable name.

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

Which functions ? Following functions is mentioned but I could not find the name of the function.

Still the answer could be int() to convert value to an integer, str() to convert value to string and float() to convert value to float.

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

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

In this expression, the error is can not concatenate string to an integer.

To repair it 99 must be enclosed in single quotes like ‘99’.