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.

**Ans:**

\* **Multiplication operator**

'hello'  **String value**

-87.8 **Float value**

- **Subtraction operator**

/ **Division operator**

* **Addition operator**

6 **Integer value**

2. What is the difference between string and variable?

**Ans:**

**String :** string is a datatype which can take one or more characters.

**Variable :** variable is to hold anytype of values, it is like storing the values.

3. Describe three different data types.

**Ans:**

**int() -** int datatype is used to hold the integer values.

**Float() -** float datatype is used to hold the decimal values.

**str() -** str datatype is used to hold the string values.

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

**Ans:**

Expression is made up with the combination of variables/values and operators. Expression will compute the operators and variables/values which are defined.

**Ex:**

calculate = 5 + 10

Here, right hand side ‘5+10’ is called as an expression, which computes the addition operation and store the output in calculate variable.

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

**Ans:**

Expression is combination of operators, values or variables which reduce into a value. While statement represents the action/command need to perform by interpreter.

**Ex:**

calculate = a+b+’as’ // entire line represents expression while right hand side represents expression i.e., a+b+’as’.

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

bacon = 22

bacon + 1

**Ans:** 23.

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

'spam' + 'spamspam'

'spam' \* 3

**Ans:**

'spam' + 'spamspam’ = ‘spamspamspam'

'spam' \* 3 = 'spamspamspam'

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

**Ans:**

Always variable should start with alphabet or the underscore character.

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

**Ans:**

For integer, int()

For floating-point number, float()

For string , str()

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

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

**Ans:**

Issue is concatenating, string with integer. To avoid, use type casting to 99 value then answer could be:

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