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.

\*

'hello'

-87.8

-

/

6

Ans: Below table differentiate the values and expressions for the above:

|  |  |
| --- | --- |
| **Values** | **Expressions** |
| ‘hello’ | \* |
| -87.8 | - |
| 6 | / |
|  | + |
|  |  |

2. What is the difference between string and variable?

Ans. String: String is sequence of characters. String is represented in single quotes (‘’) or double quotes (“ “).

Variable: Variable is a reserved memory location to store values. Also, it is user defined name which refer or points to the object.

3. Describe three different data types.

Ans. The three different Data types are:

1. int - Integer
2. Float – Floating point number
3. Bool – Boolean

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

Ans. Expressions are combinations of values and operators. Expressions represent something, like a number, a string, or an instance of a class. Expressions always evaluate down to a single value.

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

Ans. An expression evaluates to a single value, while a statement represent an action or command e.g *print statements, assignment statements.*

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

bacon = 22

bacon + 1

Ans. bacon = 22 ( As the bacon+1 value doesn’t assigned to bacon, so the bacon remains 22 only)

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

'spam' + 'spamspam'

'spam' \* 3

Ans. 'spam' + 'spamspam' gives ‘spamspamspam’

‘spam’\*3 gives ‘spamspamspam’

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

Ans. eggs is a valid variable name as rule of variable declaration satisfied that every variable name should start with alphabet only. While 100 is invalid as it starts with numeric.

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

Ans. Functions that are use to get the:

1. Integer - int()
2. Floating point number – float()
3. String - str()

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

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

Ans. 'I have eaten ' + 99 + ' burritos.'. This expression gives error because string value cannot be added to integer value. The same can be fixed as:

'I have eaten ' + ‘99’ + ' burritos.'