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

-

/

+

**Sol:** Values = ‘hello’, -87.8, 6

Expression = -, /, +

2. What is the difference between string and variable?

**Sol:**

|  |  |
| --- | --- |
| **String** | **Variable** |
| String is a data type | Variable is an entity used to store data |
| It only contains characters | It can store any form of data and is used to point towards an object |

3. Describe three different data types.

**Sol:** Integer, float, string, and Boolean are some of the data types.

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

Sol:

Expressions: It includes operators and operands to evaluate outcome. It consists of values, operators and operands.

Function: When interpreted in python they produce results in the form of values.

5. This assignment statements, like spam = 10. What is the difference between an

expression and a statement?

Sol:

Expression: It produces results by evaluating statements along with operators

Statement: It is a variable declaring something in the memory.

Example:

Spam=10 (it is a statement)

Spam=10 + 20 -10 (it is an expression)

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

bacon = 22

bacon + 1

Sol: bacon contains 22

Because the bacon value remains the same as in the second line bacon is added with 1 but it is not reassigned to change the value of bacon.

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

‘spam’ + ‘spamspam’

‘spam’ \* 3

Sol: Both produce same values: “spamspamspam”

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

Sol: Variable name cannot start with number. But variables can contain numbers. Moreover, variable name can contain underscore (\_)

9. What three functions can be used to get the integer, floating-point number, or string

version of a value?

Sol: Functions required are:

1. int()

2. str()

3. float()

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

‘I have eaten’ + 99 + ‘burritos’

Sol: String and an integer cannot be connected to each other directly,

To concatenate string and integer, the integer first needs to be converted into string format.

‘I have eaten ’ + str(99) + ‘burritos’