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

**Answer:**

Values: 'hello', -87.8, 6

Expressions: \*, -, /, +

2. What is the difference between string and variable?

**Answer:** string is a datatype in python that is used to represent the text and variable is a memory location with name to which a value is stored.

3. Describe three different data types.

**Answer:** Integer, floating point, string

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

**Answer:** Expression in programming is the combinations of operators, variables and value which will produce a new result or value when it is executed.

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

**Answer:**

Expression the combinations of operators, variables and value which will produce a new result or value when it is executed. (example: x + y, x + 4 -1 etc.).

Statement is just line of code which is used to perform specific action. Like spam = 10 which will store the value ‘10’ in the variable name ‘spam’.

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

bacon = 22

bacon + 1

**Answer:** if we print bacon, it contains 22.

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

'spam' + 'spamspam'

'spam' \* 3

**Answer:**

'spam' + 'spamspam': spamspamspam

'spam' \* 3: Spamspamspam

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

**Answer:**

eggs a valid variable name while 100 is invalid because according to standards in python, variable name shouldn’t start with numeric value. It can start with lower or upper case alphabets, or underscore and also python is case sensitive which means eggs is different from EGGS in python.

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

**Answer:**

Integer: int()

Floating-point number: float()

String: str()

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

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

**Answer:** Error occurs because you can’t concatenate the string and integer without converting the integer to string. To concatenate string and integer you have do it like this:

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