*Assignment - 1*

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.

\* (expression)

'hello' (value)

-87.8 (value)

- (expression)

/ (expression)

* (expression)

6 (value)

2. What is the difference between string and variable?

- Variables are the container that uses to store data in it.

- String is a data type which is a kind of data that we store under a variable.

3. Describe three different data types.

- Three Data Types are: 1) numeric, 2) Boolean, 3) String

Numeric -> int, float, and complex number comes under that category.

Boolean -> true or false value comes under that category.

String -> array of characters data comes under that category.

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

- Expressions are made up with operators and operands.

- An Expression is a combination of operators and operands that is used to evaluate a new value.

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

- we can evaluate an expression that can be reduced to a value. If we can’t evaluate an expression, that can be considered as a statement.

Example: ‘3+4’ it can be evaluated to 7. So it’s a expression. But just like ‘take = 3+4’, it can’t evaluated. So it’s a statement.

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

bacon = 22

bacon + 1

* Value will be 23(as post increment done in last line)

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

'spam' + 'spamspam' – ‘spamspamspam’

'spam' \* 3 – ‘spamspamspam’

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

- Variable name should start with character or underscore(\_). In ‘eggs’, ‘e’ is a character but in ‘100’, ‘1’ is neither a character not a underscore(\_).

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

- int() use to get integer.

- float() use to get floating point number.

- str() use to get string.

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

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

* Here 99 is int type. Concatenation of str and int gives us error.
* 99 to should converted to string to concatenate. Like-
* 'I have eaten ' + str(99) + ' burritos.'