Assigment\_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.

\*

'hello'

-87.8

-

/

6

**ANS -** Values - ‘hello’, -87.8, 6.

Expressions - \*, -, /, +.

2. What is the difference between string and variable?

**ANS -** String is where we store text type data in a program. String needs to be in ‘’ or “”. Ex. ‘sunny’, “hello”.

Variables means integer or numerical data type. Ex. 2, 44, 3.4.

3. Describe three different data types.

**ANS -** String - It is such a data type where text content is stored in “” or ‘’. Ex. ‘sunny’.

Numeric - In this data type integers or numbers are stored. Ex. 2, 34, 1010.

Boolean - it is such data type where True and False are stored. Values of True is 1, and False is 0.

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

**ANS -** Expression is a mathematical equation. It is made up of operators i.e. -, +, \*, / and operands i.e. 3, 90, -100, 3.2. All expressions evaluate the operands and create new values or solve the problem.

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

**ANS -** expression produces new value. That can be passed into function. But the statement is to form a sequence to a program. Statements don't produce new value. It shows the current value itself.

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 -** In both terms the value is ‘spamspamspam’. There is no difference at all.

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

**ANS -** Variable name is a name that starts with alphabets and it contains alphabets, numbers, and underscore. For example, Age\_21, no\_31, Fees.

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 -**  It is a type error, the string can only concatenate with string not with integer. so , to solve this error, we need to convert int 99 into str 99 by ‘99’. Like 'I have eaten ' + ‘99’ + ' burritos.'