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?

The difference between string and variable is :

String - is the information which is stored in the variable. It is a data type for a a sequence of characters. Eg. "Dilpreet"

Variable - are the containers , it stores the information. It is a name that refer to any value. Eg. Name

Strings are data, so we can use them to fill up a variable.
Name = "Dilpreet"

3. Describe three different data types.

Three different data types are :
1. Numeric Data type - It represent numerical value like integers, floats and complex numbers.
2. Sequence Data type - Sequence is the ordered collection of similar or different data types like
   String
   List
   Tuple
3. Mapping Data type- Dictionary is the unordered collection of data types which holds key and value pairs. Eg. Dict = {1: 'English', '2': 'Hindi', 3: 'Maths'}

4. What is an expression made up of? What do all expressions do?
An expression is made up of operators and operands.

The expression in Python produces some value or result after being interpreted by the Python interpreter.
Eg. y = y * 5 + 20

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

Statements are anything which makes up a line or several lines, it does not yield a return value or result unlike expressions which are an instruction to be executed or interpreted or evaluates.

6. After running the following code, what does the variable bacon contain?
bacon = 22
bacon + 1

After running the code bacon contains 23

7. What should the values of the following two terms be?
'spam' + 'spamspam'
Output : 'spamspamspam'
"Spam" * 3
Output : 'spamspamspam'

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

eggs a valid variable name while 100 is invalid because there are certain conditions while declaring a variable in python so
Variable name cannot start with a number.

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

The int(), float(), and str() functions will evaluate to the integer, floating-point number, and string versions of the value passed to them.

10. Why does this expression cause an error? How can you fix it?
"I have eaten" + 99 + "burritos."
The expression will give an error because string value cannot concatenate with integer and 99 is an integer value.

The correct way can be
"I have eaten" + "99" + "burritos."
"I have eaten" + str(99) + "burritos."