**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.

\*

'hello'

-87.8

-

/

6

2. What is the difference between string and variable?

3. Describe three different data types.

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

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

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

bacon = 22

bacon + 1

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

'spam' + 'spamspam'

'spam' \* 3

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

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

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

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

**SOLUTION 1**

\* **EXPRESSION**

'hello' **VALUE**

-87.8 **VALUE**

- **EXPRESSION**

/  **EXPRESSION**

* **EXPRESSION**

6 **VALUE**

**SOLUTION 2**

A Variable is something we use to store information whereas a string is a type of information you would store in a Variable. A String is usually words, enclosed with " " .You can store any type of characters within a string i.e Numbers, Special Characters and alphabets. On the other hand we can create a Variable only by following a set of rules i.e It should begin with an alphabet, only \_ can be used as a symbol.

**myworld ="This is my assignment"**

myworld is the Variable we have created and we declared it as a String by using the single = to assign the text to it.

**SOLUTION 3**

The three different data types are as follows:

1.NUMERIC

In Python, numeric data types represent the data which has numeric value. Numeric values can be integers, floating numbers or even complex numbers.

2.SEQUENCES

In Python, sequence is the ordered collection of similar or different data types. Sequences allow you to store multiple values in an organized and efficient fashion. There are several sequence types: tuples, Lists and Strings.

3.BOOLEAN

Data type with one of the two built-in values, True or False. Boolean objects that are equal to True are truthy (true), and those equal to False are falsy (false).

**SOLUTION 4**

An expression is a combination of operators and operands that is interpreted to produce some other value.

For example: **a+b\*d**

**SOLUTION 5**

An expression is a combination of values, variables, and operators. If you type an expression on the command line, the interpreter evaluates it and displays the result. On the other hand, a statement is an instruction that the Python interpreter can execute.

For example:

”a”+”b”+”9 **(Expression)**

print(a+b) **(Statement)**

**SOLUTION 6**

22

**SOLUTION 7**

‘spam' + 'spamspam' gives **spamspamspam**

'spam' \* 3 gives **spamspamspam**

**SOLUTION 8**

Eggs a valid variable name as it begins with an alphabet while 100 is invalid because it begins a number which violates the rule of creating a variable.

**SOLUTION 9**

int() , float() , and str( )

**SOLUTION 10**

The expression 'I have eaten ' + 99 + ' burritos.' will show an error because we cannot add different data types in Python.

To remove the error, we can contain 99 in quotes to make it a string. See the following:

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

Now this would produce the output **I have eaten 99 burritos.**