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.

Ans - Values – ‘hello’ , -87.8 , 6

Expression - \* , - , / ,+

2.What is the difference between string and variable?

Ans - Variable is any alphabet or group of alphabets which work as temporary storage locations. It is used to represent any value.

String is a type of information we would store in a variable. It is used to represent text type data. String always start and end with quotes.

3. Describe three different data types.

Ans- (1) Numeric data type – This data type stores numeric values . The integer, float and complex values belongs to this data type.

1. Integer – Integer value can be of any length like 2,10,-20,-150 etc. Its value belongs to int.
2. Float – Float is used to store floating numbers like 0.98, 2.408, 13.6 etc.

3.Complex – The complex number consist of two values , first one is real part of complex number , and second one is imaginary part of it . We usually denote real part using i and imaginary part with j.

(2) Boolean data type – Boolean types provide two built in values i.e. true or false. It used to determine that the given statement is true or false. True is represented by non-zero or T and False is represented by 0 or F.

(3) Dictionary data type – This data type is a unordered set of key -value pairs. It is like a hash table where each key stores a specific value. The items in the dictionary are separated by comma and enclosed in curly brackets.

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

Ans- An expression is made up of values, variables and operators. Expression represents the value , if we ask python to print an expression , the interpreter evaluates the expression and displays the result.

5. This assignment statements, like spam = 10. What is the difference between an

expression and a statement?

Ans - An expression in python is very different from statements. Expression produces single value or result after interpretation by the python interpreter. An expression is made up of values, variables and operators. Example of expression : x=x+10 , in this expression 10 is added to variable x after addition the result is assigned to the variable x.

A statement is not evaluated for some results. It is used for creating variables or for displaying values. Example of statement: a=15 , spam =10 (assignment statements i.e, in which we assign some value to variable).

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

bacon = 22

bacon + 1

Ans- The variable bacon contain 22 (bacon = 22) because bacon +1 expression does not reassign the value in bacon means we need an assignment statement i.e., bacon= bacon +1.

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

'spam' + 'spamspam'

'spam' \* 3

Ans- Both expressions evaluate in string ‘spamspamspam’.

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

Ans -100 is invalid variable name because variable does not start from number.

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

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

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

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

Ans- This expression cause an error because 99 is an integer and only strings can be link to other strings with + operator. The correct way is

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