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: The values and Expressions are categorised as follows

|  |  |
| --- | --- |
| **Values** | **Expression** |
| 'hello' | \* |
| -87.8 | - |
| 6 | / |
|  | + |

2. What is the difference between string and variable?

Ans:

String:

1. A string is sequence of one or more characters that can be either constant or variables.
2. Strings are immutable sequences.
3. For example “hello” is string that has five characters h,e,l,l,o in order
4. String is represented by either single or double quotes.

Variable:

1. Variable is something that holds the value.
2. The value of variable may change.
3. Variables are just like memory location which is used to store all kind of stuff.

3. Describe three different data types.

Ans: Three datatypes used in python are as follows

1. Integers: It contains positive & negative whole numbers i.e. no decimal and fraction values are there.
2. Float: It is real number with floating value point. It is represented by decimal point.
3. String: A string is sequence of one or more characters that can be either constant or variables.
4. What is an expression made up of? What do all expressions do?

Ans:

1. Expression in python is combination of operands and operators.
2. For example, *sum = sum + i*
3. Expression is used to evaluate mathematical operation and logic of program

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

Ans:

Expression: Expression is piece of code which is evaluated to give a value. for example,

x= 20, x = x +20, x gives value 21. Here x = x+20 is expression.

Statement: statements are piece of codes are executed to do specific task. Statement can be import library, control statement, loop statement

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

bacon = 22

bacon + 1

Ans: Output: 22

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

'spam' + 'spamspam'

'spam' \* 3

Ans: output: spamspamspam

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

Ans:

A variable must start with a letter or the underscore character. Hence eggs are valid variable name.

A variable name can’t start with number. Hence 100 is invalid variable name.

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

Ans: The int(), float(),str() can be use to get the integer, floating-point or string version of a value.

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

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

Ans: The expression cause error because only string can be concatenated by + operator and 99 is integer.

Correct way is to convert integer 99 in string.

'I have eaten ' + '99' + ' burritos.'