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?

String is data type of a variable or it is sequence of character data and variable is named location in memory. We can assign a string literal to a variable but vice versa is not possible.

3. Describe three different data types.

Answer:

**Strings**: Strings in Python are sequences of character data. They are created by enclosing characters in quotes.

**Floats**: Floats represent real numbers and are written with a decimal point.

**Integers**: Integers are whole numbers, without a fractional component. They can be positive or negative.

Example:

x = 10

y = -3

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

Ans: Expression is made up of values, variables, operators and calls to functions. More precisely expression is a combination of operators and operands that is interpreted to be produce some other value.

Expression produces some value after being interpreted by python interpreter .

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

Ans:

Expression produces some value after being interpreted by python interpreter . But statement is an instruction that is being executed by python interpreter when it is written in source code.

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: first ans: spamspamspam

Second ans: spamspamspam

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

Because of rules that we follow in python for naming variables and we canot start a variable name with digits.

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

int, float, str

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

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

Ans: As 99 is not a string literal neither has been converted to string data type.

We can fix it by using

str(99)/ "99" i.e.,

'I have eaten'+"99"+'burritos'