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

Answer

\* - is a Expression

'hello' – is a String

-87.8 – is a Integer

- - is a Expression

/ - is a Expression

* - is a Expression

6 - is a Integer

2. What is the difference between string and variable?

Answer

String – String is a type of data in python which represents text, we can store integers in string but it will be read by python as text. A string is shown between two apostrophes - “ ”.

Variable – A variable is a references used to store data in python. Eg: a = “project”. In this case, a is the variable used to store the string “project.

3. Describe three different data types.

Answer

String – Strings are texts stored in python.

Boolean – Boolean in python is ‘True’ or ‘False’.

Integer – Integers in python are integer numbers.

Complex – Complex in python represents complex numbers stored in python.

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

Answer

An expression is made up of numbers, strings, lists, Booleans, functions, operators and variables.

All expressions evaluates itself and returns with a value/result.

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

Answer

An Expression always returns with a value/result. And, A statement executes only what its told to execute like creating a variable or executing a function like print.

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

bacon = 22

bacon + 1

Answer

The variable bacon contains **22**

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

'spam' + 'spamspam'

'spam' \* 3

Answer

'spam' + 'spamspam'

Output-

'spamspamspam'

'spam' \* 3

Output -

'spamspamspam'

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

Answer

Integers cannot be variables in python and it always returns with a syntax error as python considers integers as numbers that are to be executed/operated on.

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

Answer

int( ) is used for Integer.

float( ) is used for Floating point number.

str( ) is used for String.

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

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

Answer

The above expression returns with a error as strings cannot be concatenated with integers.

We can fix the above expression with enclosing the integer viz. 99 in “ “ or ’ ’.

The fixed code would be –

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