Answer 1 :- ‘hello’,-87.8,6🡪 These are values[string,float,integer] respectively.

-,/+-🡪These are expressions.

Answer 2 :-

Variable is a property which can take any values.

String is a type of variable. It can be referred to as one of the datatypes available in python. A string is always enclosed within a quote. Ex [a=’sigma’]

Answer 3:-

These are the following datatypes in python:

1. Text-String [Example- a=’sigma’]
2. Numeric-Integer (Ex-2), Float (Ex-3.44), Complex(b=2j+3)-This datatype is used to perform mathematical operations.
3. Boolean-True or False. This datatype can take anyone of the two values, ie True or False. True indicates 1 while a False indicates a 0(zero).

Answer 4:- An expression is made up of a combination of operators and operands that is interpreted to produce some other value.

An expression takes different types of input and based upon the operations performed gives the desired outputs.

Answer 5:- An assignment statement assigns a value to a variable,in this question [Spam=10],value 10 is being assigned to the vaiable[Spam].An expression performs some operations and returns the resultant value/expression.

Answer 6:- Variable ‘bacon’ will contain the value 22.

Answer 7:- 'spamspamspam' This will be the output of this expression 'spam' + 'spamspam'.

'spamspamspam' This will be the output of this expression ‘spam’ \*3

Answer 8:-Among other rules for naming a variable in python , a rule states that a variable should begin with a \_ or a character and cannot begin with a number.

Answer 9:- A single input can be converted into an integer,float and string in the following way(image attached).

\*Note-By default the input data type is string.

\*\*Note-If in case a string is provided as an input, then b and c will give error.

Table

Description automatically generated with medium confidence

Answer 10 :-This expression will cause error because concatenation operation cannot be performed between different datatypes.

‘I have eaten’[string] + 99[integer] + ’burritos’[string]

This operation can be fixed by keeping 99 within quotes.This will convert it to a string and hence concatenation operation can be performed b/w similar datatypes.

Fixed Expression- ‘I have eaten’[string] + ‘99’[string] + ’burritos’[string]