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?

Ans:

A string is a type of information or value you store in a variable.

A variable is a place/store for information.

3. Describe three different data types.

Ans:

* Numeric data type : deals with numbers like int, float, complex.
* String data type : deals with string
* Boolean data type : hold value in the form of True/False.

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

Ans:

Expression is made up of :

* Variable
* Values
* Operators
* Functions
* Calls

An expression evaluates a specific task assigned to it. For Example, if you ask an expression to print, the interpreter will evaluate the expression and displays the result.

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

Ans:

A expression is a sequence or combination of values, variables, operators and function calls that always produces or returns a result value.

Example: x=5, y=3, c=a+b

A statement is the smallest executable unit of code that has an effect , like creating a variable or displaying a value.

Example: x=3

Print(x)

Also, An expression evaluates to a single value whereas a statement does not.

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

bacon = 22

bacon + 1

Ans: 22

To make it 23 assignment of bacon+1 needs to be done to variable bacon again. Example : bacon=bacon+1

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

'spam' + 'spamspam'

'spam' \* 3

Ans: spamspams

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

Ans: The variables that contains or starts with letters are valid like abc, Myvar

The variable that starts with number or contains numbers only are invalid. Like 200, 2\_var

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

Ans: if value is ‘a’ then :

* For integer : int(a)
* For floating-point number: float(a)
* For string version: str(a)

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

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

Ans: It causes error because 99 is an integer and only string can be concatenated to other string with + operator.

Fix:

‘I have eaten’ + str(99) + ‘burritos’