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' : values

-87.8 : values

- : expression

/ : expression

* : expression

6 : values

2. What is the difference between string and variable?

• Variables are nothing but reserved memory locations.

• Strings are one of the data types used in python. String is alphanumeric character. A string can be defined by enclosing characters within single or double quotes.

3. Describe three different data types.

Datatypes

Immutable Mutable

* Immutable data types are classified as Numbers, Strings and Tuples.
* Mutable datatypes are classified as Lists, Dictionaries and Sets.

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

An expression is a construct made up of variables, operators, and method invocations, which are constructed according to the syntax of the language, that evaluates to a single value.

e.g: a+2=b

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

Expression is made up of values, containers and mathematical operators and statement is just like a command that a python interpreter executes like print.

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

bacon = 22

bacon + 1

23

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

'spam' + 'spamspam' : ‘spamspamspam’

'spam' \* 3 : ‘spamspamspam’

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

According rules of python variable always must start with alphabet , so 100 is invalid where as eggs is valid name.

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

• int() , float() , and str( ) functions.

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

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

Concatenation of strings and integer is not possible. Concatenation of strings is possible. Here error can be fixed by converting integer value of 99 into string, writing 99 in single or double quotes as “99” or ‘99’.