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 | Variable |
| String is a list of character enclosed by ‘ ’ or “ ” symbol. | Variable is an identifier that can hold different values, so that it can be reused later. |
| Example: ‘Hello’ | Example: num=5  Here num is a variable which is holding the value five. |

3. Describe three different data types.

* int: integer data type; only integers like – 5, 7, 3, -2, 0 etc.
* float: fractional point value like – 5.4, 2.3 etc.
* string: list of characters enclosed by ‘ ’ or “ ” symbol like ‘this is a string’

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

Expressions can be made of values and operators which ultimately represent a value. All expressions represent a result value.

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

Expression represent a value, but statement is not evaluated for a result/value.

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

bacon = 22

bacon + 1

Ans: 22

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

'spam' + 'spamspam'

'spam' \* 3

Ans: spamspamspam

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

Ans: an identifier name cannot begin with a value.

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

* int(): for integer
* float(): for floating point number
* str(): for string

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

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

Ans: 99 is an integer here. Integer cannot be added to a string. In order to fix it instead of 99 use ‘99’ like as below –

'I have eaten ' + ‘99’ + ' burritos.'