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: Values: ‘hello’,-87.8,6

Expression: \*,-,/,+

2. What is the difference between string and variable?

Answer: String is a value that can be assigned to a variable.

Variable is a place holder for a value, for which a memory location is assigned in ram.

And we can read the values from the variable

3. Describe three different data types.

Answer: List, Tuple and Dictionary

List : List is a data type in python which holds heterogenous values and this is mutable ,allows duplicates and uses [] brackets.

Tuple: Tuple too holds heterogenous values but is immutable, allows duplicates and uses () brackets

Dictionary: Distionary holds values in Key:Value pairs, it too holds heterogenous types of data,allows duplicate values but not keys.

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

Answer: Expression is made up of an operators and operands they do compute values depending on the operators or operands used.

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

Answer: Expression returns a values after a operation is performed where as statement doesn’t return anything it’s just a standalone.

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

bacon = 22

bacon + 1

Answer: 22 (bacon + 1 produces value 23 just at the time of run time but the variable bacon still holds 22)

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

'spam' + 'spamspam'

'spam' \* 3

Answer: spamspamspam

spamspamspam

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

Answer: variable name cannot be a value or cannot start with a number and the variable name should either start with letters or \_

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

Answer: int(value),float(value),str(value)

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

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

Answer: String can only be concatenated with string and not integer