1. In the below elements which of them are values or an expression? eg:- values can be integers or string and expressions will be mathematical operators.

\* - expression

'hello' - strings

-87.8 - value (integer)

- - expression

/ - expression

* - expression

6 - value (integer)

2. What is the difference between string and variable?

The variable is used to store data of any datatype whereas the string is a sequential group of characters

A= ‘ Aditya ’

A = variable

‘Aditya’= string

3. Describe three different data types.

Integers = +ve and -ve whole numbers e.g -34

Float = real number with the decimals eg. 2.4

String = string is a sequential group of characters eg. ‘Aditya’

List = list is an ordered collection of any data types or items e.g = [1,32,3,4,4,’string ’]

Tuples = tuple is an immutable ordered collection of any data types or items

Set = = dictionary is an unordered collection of any data types or items where every element is unique

Dictionary = dictionary is an unordered collection of any data types or items, where data is stored in key-value pairs.

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

An expression is made up of operators, identifiers, and keywords, they reduce to produce at least one value.

Eg if my name == ‘ADITYA’:

MY NAME = ‘ADI’

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

A statement in Python is a logical instruction that the Python interpreter can read and execute. In general, a statement performs some action or action

An expression is made up of operators, identifiers, and keywords, they reduce to produce at least one value.

spam = 10 is statement

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

bacon = 22

bacon + 1

bacon = 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?

100 is integer (value) it cannot be the name of the variable here as egg fits in naming convention for identifies

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

Int()

Float()

Str()

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

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

The string cannot be concatenated with integer(DIFFERENT DATA TYPES) to fix this

FIX - 'I have eaten ' + ‘99’ + ' burritos.'