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 variable is a store of information, and a string is a type of information we would store in a variable. Variables are symbols that you can use to store data in a program. You can think of them as an empty box that you fill with some data or value.

Strings are data, so we can use them to fill up a variable.

3. Describe three different data types.

Ans:- Lists :-A list in python is an ORDERED COLLECTION of items.Lists are MUTABLE which means their elements can be changed after they are created. List items are stored in any variable as using square brackets[ ] and their ELEMENTS are separated by commas(,).

Tuples :- A tuple in python is similar to a list. It’s an ORDERED COLLECTION of items . The major difference from lists is that tuples are IMMUTABLE, which means their elements cannot be changed after they are created. A tuple is created by placing it’s items inside parentheses( ),separated by commas.

Sets :- A set is an UNORDERED collection of items where every element is unique. It’s Elements are UNCHANGEABLE and UNINDEXED.

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

Ans :- A combination of OPERANDS and OPERATORS is called an expression. ALL expression in Python produces some value or result after being interpreted by the python interpreter.

An Example of expression can be x=x+10.

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

Ans:- An Expression usually refers to a piece of code that can be evaluated to a value.

E.g. :- spam = 10 is statement likewise X= IQ/5 is also statement but here is iq/5 is an expression which produces some short of a value which we have assigned to variable X.

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

bacon = 22

bacon + 1

Ans :- bacon = 22 …….because we are not assigning it += 1

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

'spam' + 'spamspam' :- addition of strings = ‘spamspamspam’

'spam' \* 3 :- multiplying integer with string will multiply string values= ‘spamspamspam’

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

Ans :- Because here eggs are characters but 100 is a number and variable names cannot begin with a number.

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

Ans. To get integer :- int(“value”)

To get floating-point :- float(“value”)

To get string version :- str(value)

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

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

Ans :- integers can not be added to strings directly either we have to convert the string to integer or integer to string ..here in this case we might make it whole line as a string and can produce it’s value..

“I have eaten 99 burritos” can execute this