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.

\* - expressions

'hello' - values

-87.8 - values

- expression

/ - expression

* -expression

6 -value

2. What is the difference between string and variable?

A string is a type of variable which accepts only any value within double/single quotation.

However, a variable is the basic unit of storage which is used to assign a memory location to a data.

3. Describe three different data types.

1) Dictionary – This datatype stores data in the key and value format. They are defined by curly braces {}.

Ex – names = {1:”Amrita”, 2:”Ankita”}

2) Sets – This datatype is also contained by curly braces. But the difference between sets and dictionary is that sets are not mutable and also contain unique values. Unlike dictionary, they are just a collection of data with out the key-value pair arrangement.

Ex – A = {1,2,3,4,}

3) Tuple – This is a datatype which is mostly used to secure the originality of the data. This is contained in round braces () and the contents of a tuple are immutable and hence cannot be changed. As a result very few operations can be performed on it.

Ex – A = (1,2,3,4)

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

Ans: A sequence of operators and operands is called Expression. An expression performs a calculation using operators and operands.

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

Ans: An Expression performs a calculation.

Ex – a = 5, b = 6, a + b = c.

But an statement is executed only if a condition holds true.

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

bacon = 22

bacon + 1

Answer : 22

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

'spam' + 'spamspam'

Answer: “spamspamspam”

'spam' \* 3

Answer: “spamspamspam”

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

Answer: A variable name cannot take a number form. But eggs is string. So eggs can be a valid variable name while 100 is not.

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

Answer: int(), float(), str() are the three functions which can be used to get the respective versions of a value.

Ex - a = 500

b = int(a)

c = float(a)

d =str(a)

print(a,b,c,d)

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

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

Answer: addition of a string to a integer is not supported. This can be corrected by typing in the command as follows.

“I have eaten” + “99” + “Burritos”