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 one of the data type is python and variable is used to store the value of datatype

3. Describe three different data types.

**Answer:** Integer datatype: The datatype which contains the whole number.

Eg: 2,4,5,23,56

String datatype: String datatype consist of one character, more than one character and combination of words.

To declare the string type in python we use either “ ”, ‘ ‘

Eg: ‘Ekta’, “Data Science”

Float datatype: Float datatype represent the value along with the decimal value.

Eg: 2.0, 3.1, 2.34, 5.0

Floating datatype always occupy more space than a integer.

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

**Answer:** Expression of python made up of identifier, literals and operators.

**Identifiers**: The name which is used to define a class, function, variable module, or object is an identifier.

**Literals**: Literals are the representation of value in code like sting literals, byte, float literals, imaginary literals.

**Operators**: The operator is use to perform some kind of action like add(+), subtract(-), remainder(%) and many more

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

**Answer: Expression** is used to calculate some values using some values, operations etc.

**Statement:** represent action of command to perform like print statement, assignment, if-else, decision making statement etc.

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

bacon = 22

bacon + 1

**Answer:** will through an error and need variable to store the bacon value again with sum+1

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

'spam' + 'spamspam'

'spam' \* 3

**Answer**: Value of both the expression is ‘spamspamspam’

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

**Answer:** Because the variable name cannot start with the numerical number.

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

**Answer:** To get the integer value : int()

To get the foating-point number: float()

To get the string values: str()

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

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

**Answer:** Expression will cause error because here we are trying to add or concatenate different datatype.

To solve this issue we need to convert expression into same datatype.

‘I have eaten’ + ‘99’ + ‘burritos’