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

Ans.

**Values:** ‘hello’, -87.8, 6

**expressions:** \*, -, /, +

1. What is the difference between string and variable?

Ans.

A variable is a storage place in which we can store data of different datatypes and manipulate data.

whereas a string is one of the data type includes numbers, letters, words, special characters etc enclosed in double or single quotes.

1. Describe three different data types.

Ans.

1) **String**

Strings are arrays of bytes denoted by Unicode characters. It can be collection of one or more characters and can be put in a single quote, double-quote or triple quote. No character data type exists in Python, a character is a string of length one. It is represented by str class.

2) **List**

Lists is like arrays which is declared in other languages that is an ordered collection of data. It is very flexible as the items in a list does not requires of the same type.

3) **Tuple**

tuple is also an ordered collection of Python objects like list. The only difference between tuple and list is that tuples are immutable. It means tuples cannot be modified after once it is created. It is represented by tuple class.

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

Ans.

An expression is a combination of operators, constants and variables. Expression is interpreted to produce some other value

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

Ans.

statements are standalone units of execution and doesnot return anything.

Expressions are executed to return some value

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

bacon = 22

bacon + 1

Ans.

bacon contains 22.

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

'spam' + 'spamspam'

'spam' \* 3

Ans.

'spam' + 'spamspam' = spamspamspam

‘spam \* 3 = spamspamspam

both returns same value

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

Ans.

A variable name can start with letter and is case sensitive in python.

while 100 is invalid because a avriable cannot start with a number

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

Ans.

int(), float() and str()

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

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

Ans.

Here 99 is integer, we cannot concatinate string with integer. in order to fix it we should convert 99 to string i.e ‘99’