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: \*, -,/,+

2. What is the difference between string and variable?

Ans: A string is basically a datatype that stores characters, numbers and symbols without numerical manipulation capability. Where as variable is the entity that changes it’s value as per requirement of the program. A variable can store any datatype unlike the strings.

1. Describe three different data types.

Ans:

Int : Integer datatype stores integer value of the given object (if possible). It neglects the float values if given.

Float: Float datatype stores higher range of floating value ranging from 1 to 32 bits or 64 bits as per the system running the program. It requires more memory than int.

String: String datatype inherently an array of characters. It stores most datatypes as characters.

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

Ans:

All expressions in Python perform some computation and return a value. They can be used in assignments, calculations, comparisons, and many other contexts where a value is expected.

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

Ans:

A statement, like an assignment statement ( spam = 10), is a complete instruction or action in Python. It doesn't produce a value itself but can include expressions. It performs tasks like assigning values to variables or controlling the flow of the program.

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

bacon = 22

bacon + 1

Ans :

“Bacon” variable will contain integer value of 22 ans the second statement was not an assignment.

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

'spam' + 'spamspam'

'spam' \* 3

Ans

Both of the terms will have “spamspamspam” .

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

Ans:

According to python convention, the variable name should start with an character or “\_”. Hence the variable name 100 is invalid.

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

Ans:

Three functions those can get the integer, floating-point and string are respectively int(), float() and str().

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

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

Ans:

The above expression will cause error as we are using “+” expression with string and integer in a single statement. The easy way to fix this is to convert 99 into string by adding “ “ or using str() function for the job.

‘I have eaten’ + ‘99’ + ‘burritos’ or

‘I have eaten’ + str(99) +’burritos’