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.

String – ‘hello’

Integer –87.8,6

Mathematical operators - -,/,+

2. What is the difference between string and variable?

string a class - reference datatype

it is used to represent text type data

variable is any alphabet or group of alphabets which work as temporary storage locations, a variable is used to represent any value

3. Describe three different data types.

Str-str represents String data type. A String is a sequence of characters enclosed within single quotes or double quotes.

s1='Hitesh' s1="Hitesh"

List data type

If we want to represent a group of values as a single entity where insertion order required to preserve and duplicates are allowed then we should go for list data type

* insertion order is preserved
* heterogeneous objects are allowed
* duplicates are allowed
* Growable in nature
* values should be enclosed within square brackets.

Tuple data type

tuple data type is exactly same as list data type except that it is immutable we cannot change values. Tuple elements can be represented within parenthesis

tuple is represented by

t=(10,20,30,40)

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

A combination of operands and operators is called an expression. The expression in Python produces some value or result after being interpreted by the Python interpreter. An expression in Python is a combination of operators and operands.

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

Expressions produce a value, and that value will be passed into the function. Statements don't produce a value

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

bacon = 22

bacon + 1

bacon=23

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

'spam' + 'spamspam' - spamspamspam

'spam' \* 3 - spamspamspam

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

Variable cannot start with number or be an integer value hence eggs is valid and 100 is not a valid name

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

int(value)

float(value)

str (value)

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

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

Only string elements can be used with mathematical operators to concatenate with strings , 99 is an integer