**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.**

\* :expression

'hello' :value

-87.8 :value

- :expression

/ :expression

+ :expression

6 :value

**2. What is the difference between string and variable?**

String is a datatype which specifies type of data to be stored in a variable.

Whereas variable create a memory location in system to store the value.

**3. Describe three different data types.**

List[] : list is used to store values of different datatype. List is mutable i.e. list can be manipulated/altered.

Tuple(): tuple is also used to store of different datatype. But tuple is immutable, it cannot be altered.

Dictionary: it is datatype where data is stored in key: value pair.

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

An expression is a combination of operation and operands.  
operation like athematic operation, logical operation, relation operation etc

Operands are the variables on which operations are performed.

All expression provides us some values based on operations performed on operands.

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

An expression is a combination of operation and operands to produce some value.

An statement is the execution block which perform action and doesn’t provide any result.

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

bacon = 22

bacon + 1

after printing bacon value, it will return 22, as bacon+1 is not assigned to bacon variable i.e. bacon = bacon+1

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

'spam' + 'spamspam'

'spam' \* 3

Both will result to : spamspamspam

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

based on variable naming convention: variable should start with character, it can contain numbers and \_ sign but not a starting.

Variable name cannot only have numeric value.

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

Int(): for integer

Float(): for floating point number

Str(): for string

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

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

As + sign indicate concatenation operation which is only performed on string values as 99 is an integer it will throw an error.

‘I have eaten ‘ + ‘99’ + ‘ burritos.’