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' = values

-87.8 = values

- = expressions

/ = expressions

+ = expressions

6 = Values

2. What is the difference between string and variable?

Ans:- String are the data which is used to store somewhere and Variables are symbols that you can use to store data in a program

3. Describe three different data types.

Ans:

   1). Numeric: It is a data type represent data which has numeric values it can be integer, floating and complex like Int for integer, float for floating number and complex for complex number

   2). Sequence type: sequence type is a data type which is ordered collection of similar or different data type sequence allows to stores multiples values

Types of sequence data type

   i)   List()
   ii)   Tuple
   iii)   String

   3). Boolean: Boolean is a data type which has one or two built in data type True or False

 True always start with capital "T" and False always start with "F"

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

Ans: combination of operands and operator is called expression

Expression is used to produce values and results

Example, Like x=2 ,y=x+2 in the is first I have assign 2 in x and the I used that x adding(operator +) some values 2 then it produce result 4

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

Ans: Here in example expression is used to assign value in variable and statements is just a execution and it doesn't return any thing.

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

bacon = 22

bacon + 1

Ans: bacon contain after execution 23

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

'spam' + 'spamspam'

'spam' * 3

Ans: Both terms will give same output in the first terms we are concatenate

And in other terms we are using operators for multiplication

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

Ans: Eggs is a valid variable cause it has symbolic name that is reference of an object and its is a reserved memory location to store values and 100 is invalid because when we give any number or identifiers as a variable then compilers get confused for running successfully we need combine the string with digits like eggs100 = 500

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

Ans: integer = int()

floating-point number = float()

string = str()

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

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

Ans: when we are trying to combine the text with digit it gives Type Error

"**TypeError**: can only concatenate str (not "int") to str"

Error happen because the Concatenation is used to concatenate the String only, Python doesn't know how to convert the digit into string so by using str() function we can overcome this scenario

Ex: 'I have eaten ' + str(99) + ' burritos.'