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

Ans1:- All of them

2. What is the difference between string and variable?

Ans2:- **String** is a datatype.

**Variable** stores data in memory location.

3. Describe three different data types.

Ans3:-

**Numeric data type** represent the data which has numeric value. Numeric value can be integer, floating number or even complex numbers. Ex:- int, float, complex number.

**Sequence data type** is the ordered collection of similar or different data types. Sequences allows to store multiple values in an organized and efficient fashion. Ex:- string, list,tuples

**Boolean** data type, with one of the two built-in values, True or False. Boolean objects that are equal to True are truthy (true), and those equal to False are falsy (false).

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

Ans4:-

An expression is a combination of values, variables, operators, and calls to functions.

Expressions are representations of value.

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

Ans5:- An expression is something that can be reduced to a value, for example "1+3" is an expression.

A Statement is a action or a command that does something. Ex: If-Else,Loops..etc

Statements do something while expressions are representation of value.

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

bacon = 22

bacon + 1

Ans6:- bacon contain 22

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

'spam' + 'spamspam'

'spam' \* 3

Ans7:- 'spam' + 'spamspam' ------------🡪 'spamspamspam'

'spam' \* 3 ------------🡪 'spamspamspam'

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

Ans8:- Because of pythons variable defining rules variable names cannot began with numbers.

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

Ans9:- 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.'

Ans10:- This expression causes error because strings can onl concatenate strings with plus operator.

To fix this convert integer 99 to string type using str() function.

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