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' string

-87.8 integer

- expression

/ expression

* expression

6 integer

2. What is the difference between string and variable?

A string is a fixed set of values r rather collection of values, characters etc. whereas variable is a set of value which keeps on changing based on the requirement of the user.

For example: print(‘I started data science late’) is a string

Whereas int x=10;

And in the next line x=x+2;

So this x is variable.

3. Describe three different data types.

The three types of data types are mainly

1. Numeric data 🡪 in this data type we store the value of integer. Mainly 3 types int, float and complex
2. Sequence data type 🡪 in this data type we can stored ordered values, in a well defined list which include strings, list and tupple.
3. Boolean data type 🡪 in this data type we denote or identy any value as TRUE or FALSE.
4. What is an expression made up of? What do all expressions do?

An expression is made up of numeric value and an operator or arithmetic operation.

6 and 5 are numeric value

+ is an arithmetic operation.

And “6+5” is an expression.

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

Expression includes both numeric value as well as an operator but a statement is fixed it cannot be changed like declaring a variable.

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?

A variable name is always a alphabet while 100 is a fixed numeric value while “eggs” is an alphabet to which a variable numeric value can be assigned.

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

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

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

the above expression is not well defined it includes all type of data structure namely alphabet, numeric , and a mathematical operator.

This can be fixed using a string command.

String1 = “ I have eaten 99 burritos.”