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

2. What is the difference between string and variable?

Ans: A string is a data type that represents sequence of character whereas variables are used to store data that may change in execution of programme.

3. Describe three different data types.

Ans: Integer, string and Boolean

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

Ans: Constants, variables, and function calls are examples of the operands and operators that can be included in an expression. Every expression yields an accurate value.

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

Ans: An expression evaluates to a value, while a statement performs an action. An assignment statement like "spam = 10" is an example of a statement that assigns the value 10 to the variable "spam".

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

bacon = 22

bacon + 1

Ans: After running the code, the variable "bacon" contains the value 22. The expression "bacon + 1" evaluates to 23, but this value is not assigned to any variable. If you want to update the value of the "bacon" variable, you need to assign the result of the expression to it, like this:

bacon = bacon + 1 # or alternatively: bacon += 1

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

'spam' + 'spamspam'

'spam' * 3

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

Ans: In Python and many other programming languages, variable names must follow certain rules. Variable names can only contain letters, digits, and underscores, but they cannot start with a digit. Therefore, "eggs" is a valid variable name because it only contains letters, while "100" is invalid because it starts with a digit.

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.'