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

-

/

Ans:Hello (string)

87.89(float)

\* - / (operator) ---expression

2. What is the difference between string and variable?

Ans: variables are symbols that you can use to store data in a program.. Strings are data, so we can use them to fill up a variable

3. Describe three different data types.

Ans: Data Type Definition

String (str or text) -------------------------------Sequence of characters, digits, or symbols—always treated as text

Boolean (bool)------------------------------------ True or false values

Enumerated type (enum) Small set of predefined unique values (elements or enumerators) that can be text-based or numerical

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

Ans: An expression is a construct made up of variables, operators, and method invocations, which are constructed according to the syntax of the language, that evaluates to a single value.

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

Ans: An expression evaluates to a single value. A statement does not.

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

bacon = 22

bacon + 1

Ans: The variable bacon will still contain the value 22.

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

'spam' + 'spamspam'

'spam' \* 3

Ans: 'spam' + 'spamspam' evaluates to the string 'spamspamspam'. The + operator concatenates the two strings together, resulting in a single string that combines the contents of both strings.

'spam' \* 3 evaluates to the string 'spamspamspam' as well. The \* operator performs string repetition, where the string 'spam' is repeated three times, resulting in a new string with the concatenated repetitions.

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

Ans: Because variable names cannot begin with a number

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

Ans: The int(), float(), and str() functions will evaluate to the integer, floating-point number, and string versions of the value passed to them.

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

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

Ans: 'I have eaten ' + 99 + ' burritos. ' The expression causes an error because 99 is an integer, and only strings can be concatenated to other strings with the + operator. The correct way is I have eaten ' + str(99) + ' burritos.