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

Ans) Values = Integer 6 and string ‘hello’

Expressions = \*, +, /, -

2. What is the difference between string and variable?

A Variable is a store of information, and a String is a type of information you would store in a Variable.

A String is usually words, enclosed with ""

Eg String x ="hello world” X is the Variable, and we declared it as a String.

3. Describe three different data types.

1) Integers - Positive or negative whole numbers without a fractional part e.g. -10, 20, 371, 295245.

2) Floating - Any real number with a floating-point representation in which a fractional component is denoted by a decimal symbol or scientific notation e.g. 1.23, 4.55.

3) Boolean - Data with one of two built-in values True or False. Notice that 'T' and 'F' are capital. true and false are not valid booleans and Python will throw an error for them.

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. As you can see from the other expressions, an expression can return other types of values as well, such as boolean or String.

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

Ans - An expression evaluates to a value. A statement does something. Statements represent an action or command e.g print statements, assignment statements. Expression is a combination of variables, operations and values that yields a result value.

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

bacon = 22

bacon + 1

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

'spam' + 'spamspam'

'spam' \* 3

Ans - 'spamsspamspam'

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

Ans - 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.

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 -  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.