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

Answer: The values are 'hello', -87.8, and 6. The expressions are *,-, /, and +.

2. What is the difference between string and variable?

Answer: a string is a sequence of characters, and a variable is a named location that stores data.

3. Describe three different data types.

Answer:
1) int - an integer data type. Ex: 3,5,19
2) float - a floating-point data type Ex: 3.5,9.1
3) str - a string data type Ex: "hope","21"

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

Answer: An expression is made up of values, variables, operators, and functions.
All expressions evaluate to a single value.

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

Answer: An expression is a piece of code that returns a value, while a statement is a piece of code that performs an action.

6. After running the following code, what does the variable bacon contain?
bacon = 22
bacon + 1

Answer: Bacon will contain 22

7. What should the values of the following two terms be?
'spam' + 'spamspam'
'spam' * 3

Answer: Both expressions evaluate to the string 'spamspamspam'

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

Answer: 100 is invalid as variable name cannot start with a number.

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

Answer: 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.'

Answer: 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.'.