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 operators are +, -, \*, and /.

2. What is the difference between string and variable?

Answer: - The string can be written in quotes such as ‘Machine Learning’; where as in the variable we can store data like a container.

3. Describe three different data types.

Answer: - The three data types introduced in this chapter are integers, Boolean, complex, Array and strings.

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

Answer: - An expression is a combination of operators and values. All expressions reduce to a single value.

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

Answer: - 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

Answer: - The bacon variable is set to 22. The bacon + 1 expression does not reassign the value in bacon (that would need an assignment statement: bacon = bacon + 1).

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

'spam' + 'spamspam'

'spam' \* 3

Answer: - 'spamspamspam'.

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

Answers: - 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?

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.'.