Question 1: What is a loss function?

Question 2: Is there a difference in the role of a loss function for a classical machine learning algorithm as opposed to a deep learning algorithm?

Question 3: How does one determine whether a loss function is effective or not? How does one compare loss functions, and determine which loss function is more effective.

Answer 1: A loss function is a method of determining the margin of error between an algorithm's predicted value and the actual value that occurred.

Answer 2: I do not think there is a difference, since in both classical machine learning algorithms and deep learning algorithms, there must be a way to characterize loss in order to better improve the algorithm’s predicting power.

Answer 3: If the loss function does not work as intended, the model will not be effective. As a result, an ineffective model might be indicative of a flawed loss function. However, this doesn’t indicate whether the loss function is the reason behind the model’s ineffectiveness, or whether there is another reason. Furthermore, in order to compare loss functions, one might compare the performance of each loss function on the same model.