Q1

For the given problem statement the best algorithm or architecture would be that can be used would be RNN’s or their derivatives.

I will be using GRU for the purpose because of its faster processing time.

For training the data I took a dataset and converted the sentences in it to an array of randomly assigned numbers and then used an embedding layer followed by GRU followed by Dense layer with sigmoid activation function because we need a binary decision.

I used ‘adam’ as optimizer and because it is a binary problem I used ‘binary\_crossentropy’ to calculate loss.

The model was fitted using batch size = 100 and epochs = 10.

**An approach I thought of (might be unattainable)–**

Just like reverse RNN we can make a reverse GRU which would help the model get a better understanding of the context of the word in the sentences. This way the accuracy would be better. If we have this kind of architecture, we can replace the GRU layer with the reverse GRU layer and obtain better results.