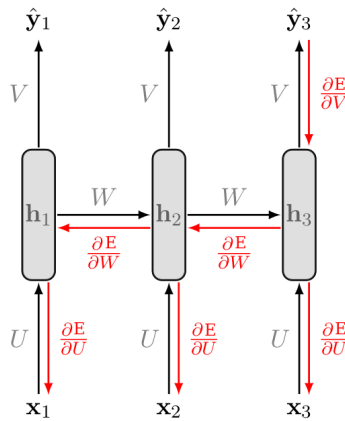# Scalable Machine Learning and Deep Learning - Review Questions 4

Deadline: November 29, 2019

1. **1 point.** What's the vanishing problem in RNN?

2. **1 point.** Explain the impact of different gates in LSTM.

3. **1 point.** Assume the error of the following network is $\mathtt{E} = \mathtt{E}^{(1)} + \mathtt{E}^{(2)}$, then compute the $\frac{\partial \mathtt{E}}{\partial \mathtt{u}}$.

4. **1 point.** Explain how to use a seq-to-seq model for language translation.

5. **1 point.** Briefly explain the attention and self-attention mechanisms.