

NSCI 401

## Final exam questions

(Fall 2019)

1. What mechanistic role do voltage-gated ion channels have?
2. Why are normative models of behaviour so important to understand brain function?
3. What are the two main hurdles to spike decoding?
4. What are two computational roles of inhibition in the brain?
5. How does feedback help with the control of movements?
6. What is the role of prior information in Bayesian computations?
7. Explain two different potential neural implementations of the speed-accuracy trade-off.
8. What is the minimum intervention principle and where does it come from?
9. How does a reward prediction error lead to learning?
10. How do memory and attention interact (both ways)?

**Note:** during the exam, there are *no aids allowed*. Don't forget to bring your Queen's student photo ID to the exam!