**Exercise 4 – questions**

1. Describe the relative advantages and disadvantages of EEG and cryogenic MEG (6 points).
2. What are evoked potentials and stimulus-induced activity, and how do they differ? (6 points)
3. In EEG, why is it considered more important to have good impedance when recording subjects during task-based experiments (as opposed to resting state)? (4 points)
4. Describe voltage-clamp and current-clamp techniques. (4 points)
5. What contributes to linear mixing in EEG/MEG data? What are the problems arising from linear mixing? How can these problems be addressed during data processing and analysis? (10 points)
6. What steps in recording and preprocessing are required for good source reconstruction in EEG and MEG? (6 points)
7. How are local and inter-areal synchronization related to each other? (4 points)
8. Which brain states are typically dominated by delta, theta, and alpha rhythm, respectively? (6 points)
9. Discuss if the alpha peak can be diagnosed to diagnose neuro(psychological) disorders. (4 points)