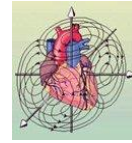# EVICAB

Bioelectromagnetism
Examination 2015.02.23
Submit this examination form as an attachment to *exam@evicab.eu*
The form may be submitted only once during the examination time.

Name	
Student No.	
University	
Password	

Examination

For the part a) of the questions, please give a short answer.
For the part b) of the questions, please give a more detailed answer including discussion.

1)
a) What is the Nernst equation?
b) What does it describe?

2)
a) What is the lead field?
b) For what purpose and how is it used?

3)
a) Describe the conduction system and the electric activation of the heart.
b) What mechanism the heart has against defects in the activation system to ensure life?

4)
a) What VCG system is most insensitive to misplacement of the electrodes and why?
b) What are the benefits and drawbacks of this system in clinical practice compared to other VCG systems?

5)
a) What is the origin of the impedance tomography image?
b) What are the applications of this technology? What are its benefits and drawbacks?

Your answers: