



General instructions: Experimental Examination

The experimental examination lasts 5 hours and is made up of 2 separate experiments, each worth 10 points. You're requested to start with the first experiment and then move on to the second one. Please read carefully the instructions at the beginning of each experiment before you start to work on it.

You can find the equipment used in the first experiment on your table (including what is inside the box which is on your table). The equipment to be used in the second experiment is inside a second box, placed under your table. At the end of the experiment, you are asked to return the equipment into the corresponding boxes (unless otherwise instructed).

The beginning and end of the examination will be indicated by a sound signal. You must not open the envelopes containing the problems, or the equipment boxes, before the sound signal indicating the beginning of the competition. There will be announcements every hour indicating the elapsed time, as well as fifteen minutes before the end of the examination (before the final sound signal).

During the exam

- Use only the pen provided.
- Dedicated answer sheets are provided for writing your answers. Enter the observations and data into the appropriate tables, boxes or graphs in the corresponding answer sheet (marked A). For every problem, there are extra blank work sheets for carrying out detailed work (marked W). You may find additional graph paper at the end of the answer sheets (marked A). **Be sure to always use the working sheets that belong to the problem you are currently working on** (check the problem number in the header). If you have written something on any sheet which you do not want to be graded, cross it out. Only use the front side of every page.
- In your answers, try to be as concise as possible: use equations, logical operators and sketches to illustrate your thoughts whenever possible. Avoid the use of long sentences.
- You are asked to give an appropriate number of significant digits when stating numbers, and to include error calculations when needed. Also, you should decide on the appropriate number of data points or measurement repetitions unless specific instructions are given.
- You may sometimes be able to solve later parts without having solved the previous ones.
- You are not allowed to leave your working place without permission. If you need any assistance, please draw the attention of a staff member using one of the supplied flags ("WC" if you need to go to the toilet, "H2O" if you need more water or "Help!" for paper or any other issue).

At the end of the exam

- At the end of the examination you must stop writing immediately.
- For every problem, sort the corresponding sheets in the following order: cover sheet (C) at the top, questions (Q), answer sheets (A) and finally working sheets (W), including any empty or extra sheets (Z) at the bottom.
- Put all the sheets belonging to one problem into the same envelope. Make sure your student code is visible in the viewing window of each envelope. Put the envelopes containing your papers, together with this instructions page, inside the big envelope. You are not allowed to take any sheets of paper out of the examination area.
- Leave your writing equipment on the table.
- Return each of the two experiments equipment items into the corresponding original boxes, unless requested otherwise in the question itself.
- Wait at your table until the envelopes are collected. You will be escorted out of the examination area.