

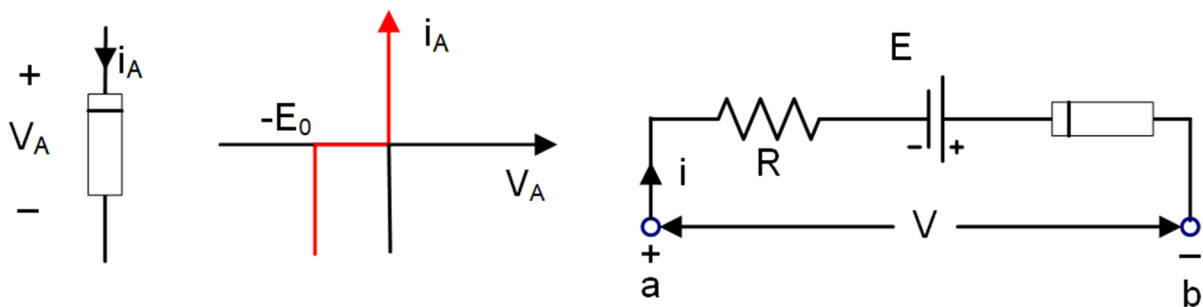
Rules:

- 1) Your homework should be hand-written.
- 2) Don't include a cover page. Use both sides of the paper.
- 3) Have at least 1,5 cm margin from the edges.
- 4) The grades of identical or very similar looking homeworks will be divided to the number of such homeworks.
- 5) Your homeworks will be collected in the class on Wednesdays before the first lecture, till 12:30. If you bring your homework between 12:31 – 13:30 your grade will be multiplied with 0,7. After 13:30 no homework will be accepted.
- 6) You must sign on a sheet of paper as proof of handing in.

If you want to hand in your homework before Wednesday, you must contact research assistant Görkem Yazgaç (Office: 8301).

1) A circuit element satisfies the equation $v - 2i[2 + \cos(t)] - 3 = 0$ for $t \geq 0$. Find the properties of this element (e.g. x- or y-controlled, time invariant or not, linear or not, bilateral or not). (40 points)

2) Obtain the characteristic of the one-port a – b given below. (100 points)



Deadline of the 2nd HW is **28 February 2018 12:30**.
