

# Assignment-1

## Winter\_2025

### Basic Electronics (ECE113)

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## Instructions

- **Institute Plagiarism Policy Applicable.** This will be subjected to strict plagiarism check.
  - A maximum marks for this assignment is **15**. All questions are compulsory.
  - **File Submission:** Only a *.pdf* file are acceptable, which you have to submit on Google Classroom. Use A4 size sheets only (ruled or blank) to solve your assignment and scan it to create a *.pdf* file. Attempt each question on a different sheet. Do not start a new question at the back of the previous one. Do not forget to mention Page Number (bottom center) clearly on each sheet of the assignment. Submit a *.pdf* file named *A1\_RollNo.pdf* (e.g., *A1\_24500.pdf*), which containing the quality scan copy of your solved assignment.
  - **Submission Policy:** Turn-in your submission as early as possible to avoid late submissions. In case of multiple submissions, the latest submission will be evaluated. Expect **No Extensions**. Late submissions will not be evaluated and hence will be awarded zero marks strictly.
  - **Clarifications:** Symbols have their usual meaning. Assume the missing information & mention it in the report. Use Google Classroom for any queries. In order to keep it fair for all, no email queries will be entertained.
  - There could be multiple ways to approach a question. Please justify your answers. Questions without justification will get zero marks.
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[CO3] Q1: [7.5 Marks] Find the value of voltage of each capacitor at  $t = 0^+$  (in Figure-1), when  $V_{C1}(0^-) = 2\text{ V}$  and  $V_{C2}(0^-) = 0\text{ V}$ .

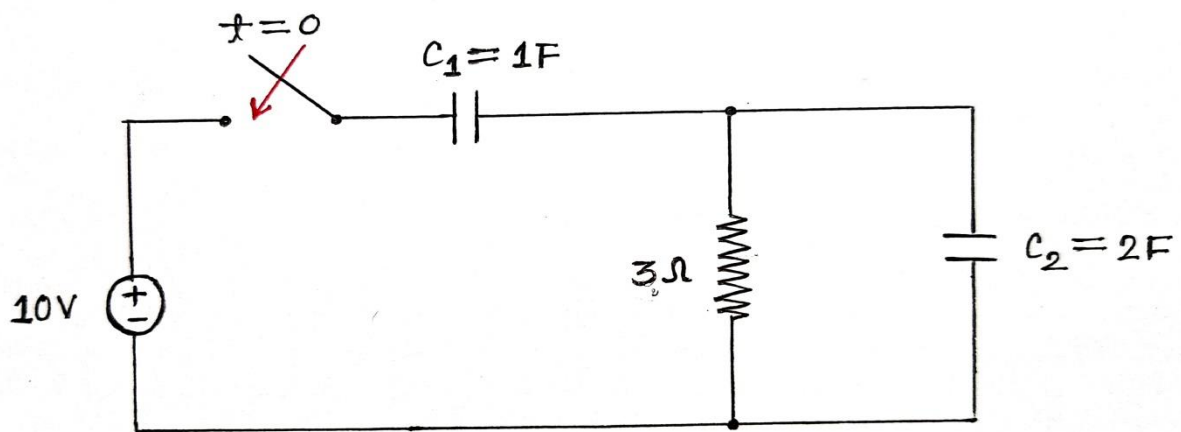


Figure 1

[CO1, CO2] Q2: [7.5 Marks] In the given Figure-2, if  $V_P = 300\text{ V}$ ,  $V_Q = 100\text{ V}$  then find the value of  $(V_R - V_S)$ .

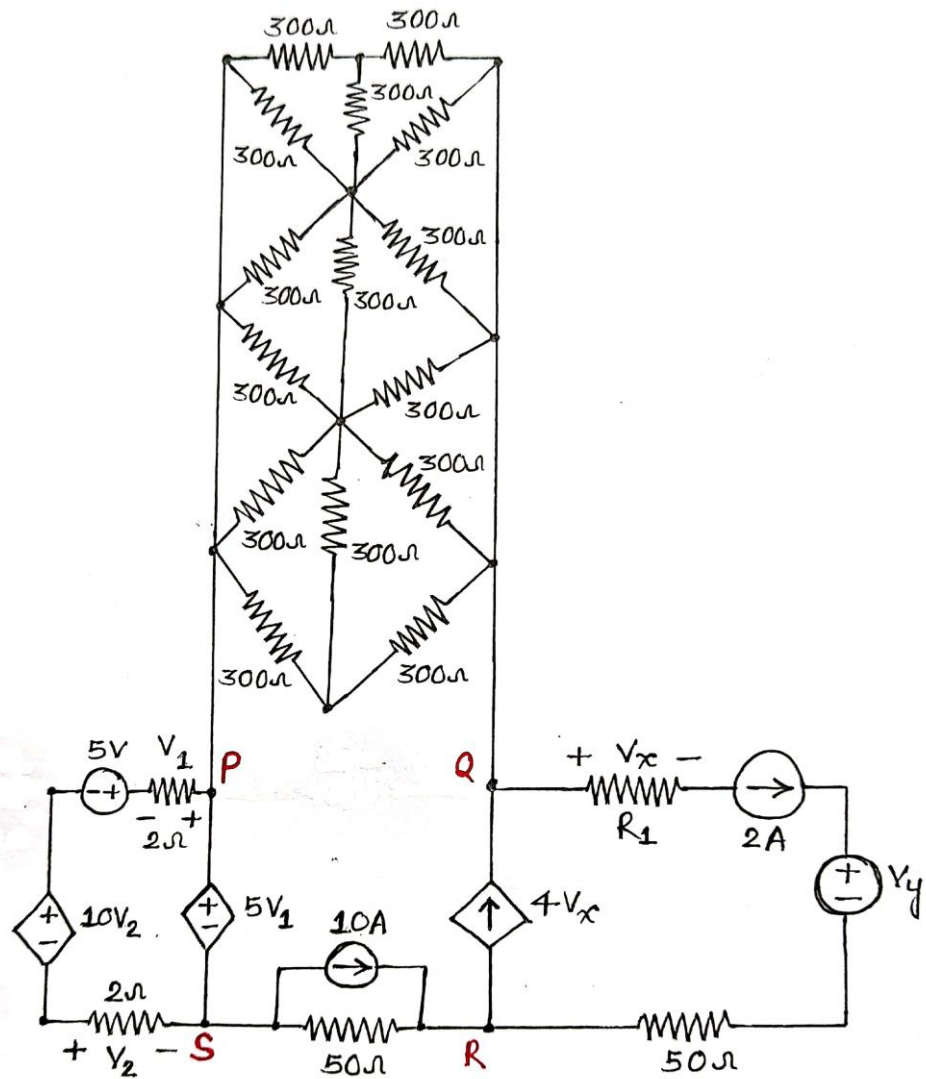


Figure 2