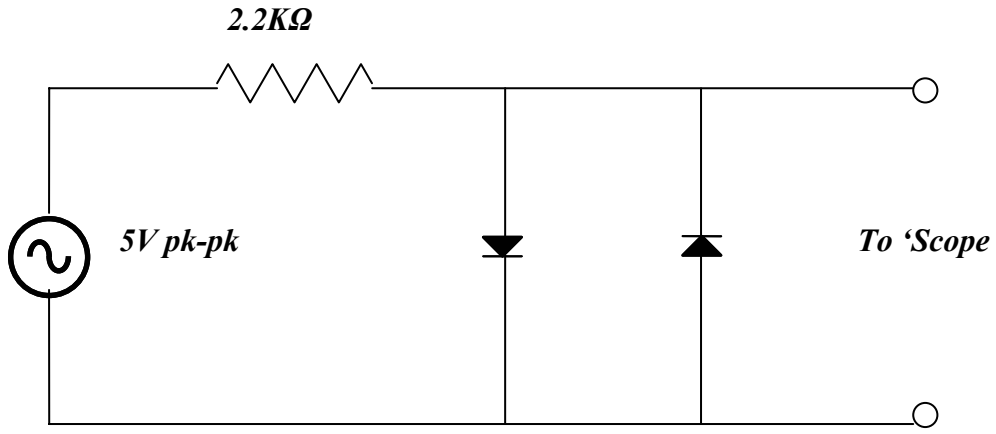
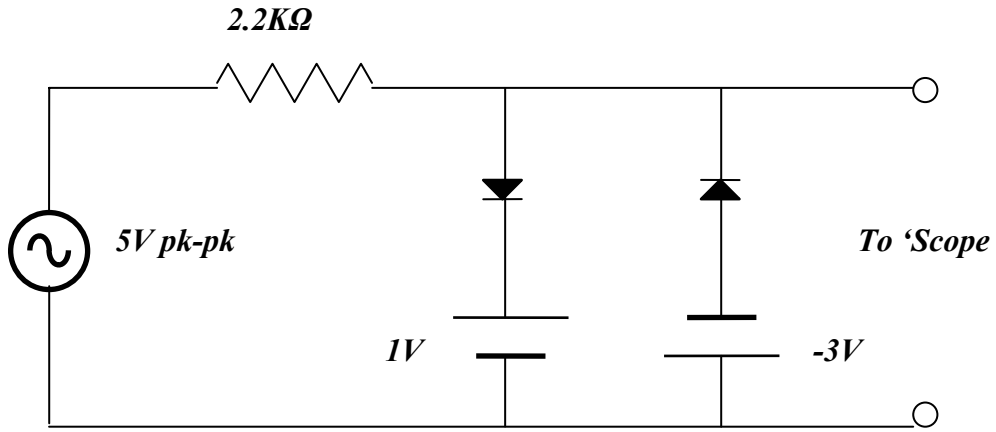
1BA5 Laboratory Experiment 2:

1) Connect the circuit shown in the following diagram:



2) Observe the output on the 'scope. From your observations, estimate the cut-in voltage of the diode.
3) Now connect the following circuit:

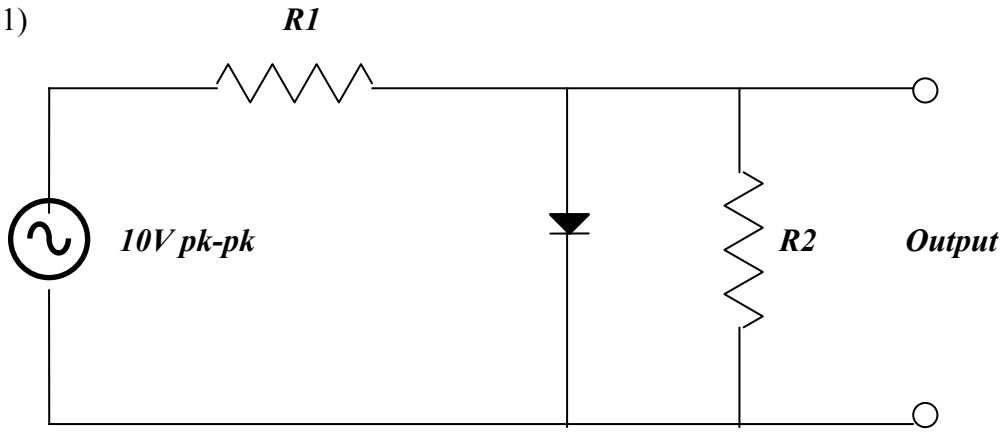


4) Plot the input and output waveforms and explain your observations.
5) Connect the following circuit:
6) The above circuits are 'Clipping Circuits'. Suggest some applications for them.

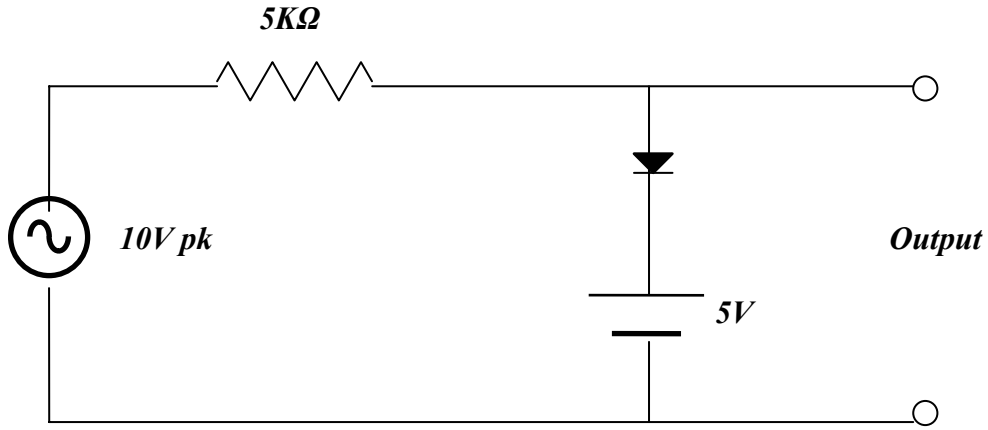
Exercises:

Complete the following exercises and include the solutions with your report:
Assuming ideal diodes (forward voltage drop of diode ~ 0V), sketch the outputs of the following circuits:

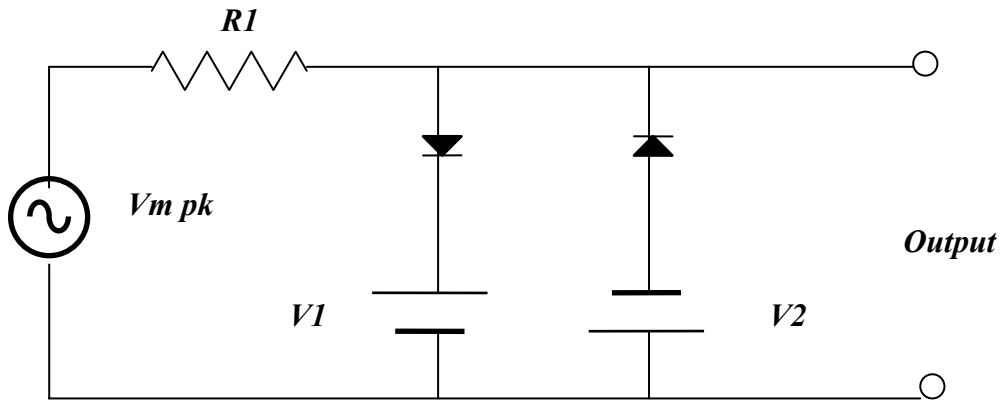
1)



2)



3|)



Laboratory Report:

Reports should be handed up at the subsequent laboratory session for your group. Your name, group number and the date should be clearly indicated on the cover page. The report should be written with a pen and be neat and concise (use a ruler for the circuit diagrams, plots and tables). Explanations should be brief but complete. Marks will be awarded ~25% for the presentation of results, ~25% for the explanation and interpretation of these results and ~50% for the exercises. The work should be completed on A4 paper – duly bound.