## ECE580 HW-3

## Due Nov 16, 2016 in the class

Q1:

(a) Calculate Vo/Vin.
(b) Choose Y1 Y2 Y3 Y4 from R and C so as to realize band pass response.
(c) Find Q and $\omega_{0}$ of the realized filter.

Q2:

(a) When switch S is open:
a) Calculate Vo/Vin.
b) Calculate the relation between $\mathbf{G m}$ and R for a stable filter.
(b) When switch S is closed, calculate Vo/Vin.

