# EE584 Simulation Assignment #2

## PART-I

### 1)



### 2)

GAIN PHASE:

### 

## PART-II

### 1)

603 Hz

Since fcis supposed to be only slightly above the LC resonance frequency, 5k is not a good idea.

### 2)

### 3)

#### Voltage response for step change



### 4)

#### Voltage response for step change, PM = 45◦



#### Voltage response for step change, PM = 60◦



From comparing the graphs we can see that a lower phase margin results in a higher overshoot.

### 5)

#### Voltage step response with fc=2000



#### Voltage step response with fc = 1000



From comparing the graphs we can see that having a too high crossover frequency results in a higher overshoot.