## KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS ELECTRICAL ENGINEERING DEPARTMENT SECOND SEMESTER 2005/2006

EE 201 MAJOR EXAM II

LOCATION: IN CLASS

**DATE: MONDAY 8-5-2006** 

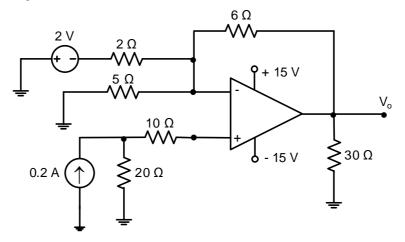
**DURATION: 50 MINUTES** 

Student's Name:	
Student's I.D. Number:	

Problem 1	
Problem 2	
Problem 3	
Total	

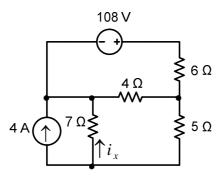
## Problem 1 [33 points]

Calculate the voltage  $\,{\rm V_{\scriptscriptstyle o}}\,$  in the Op Amp circuit shown.



## Problem 2 [33 points]

In the given circuit, use superposition to calculate the current  $\,i_{\scriptscriptstyle x}$ :



## Problem 3 [34 points]

In the circuit shown below, the switch remains in position (1) for a long time. It is suddenly moved to position (2) at t = 0. Find the inductor's current in the time intervals:

- a) t < 0.
- b) t > 0.

