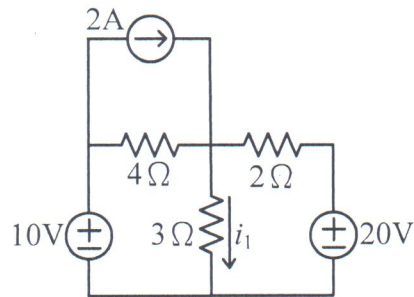
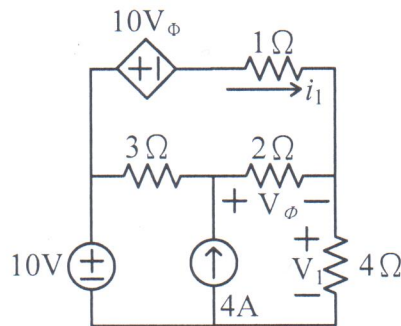


AY110 - Electric Circuits -First Examination

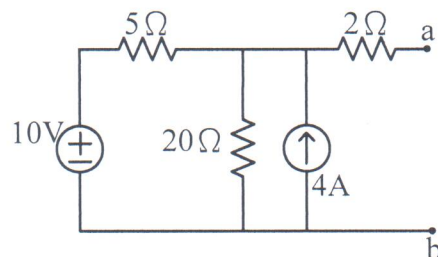
1. According to the following circuit,
 - (1) identify the essential nodes and essential branches, (4%), and
 - (2) determine current i_1 . (5%)



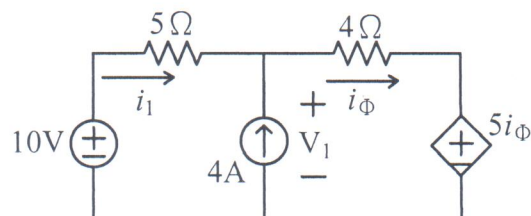
2. Use mesh-current method to analyze the following circuit and determine i_1 , V_1 , and power through the current source 4 A. (9%)



3. Find a Thévenin equivalent circuit looked from terminals a-b for the following circuit. (6%)



4. Use superposition principle to analyze the following circuit and determine i_1 and V_1 . (6%)



5. According to the following circuit, determine the maximum power transferred to load R_L . (5%)

