

國立臺北科技大學 114 學年度碩士班招生考試

系所組別：2110 電機工程系碩士班甲組

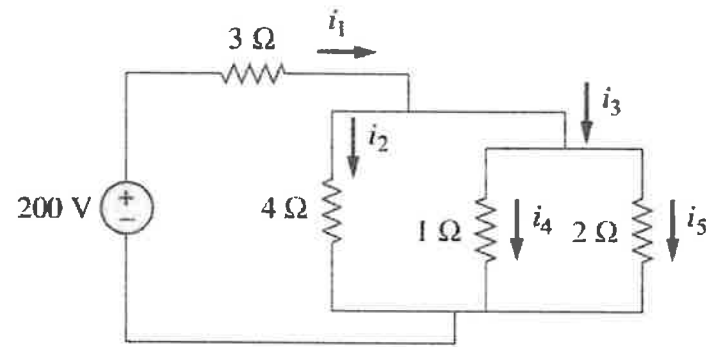
第一節 電路學 試題

第 1 頁 共 1 頁

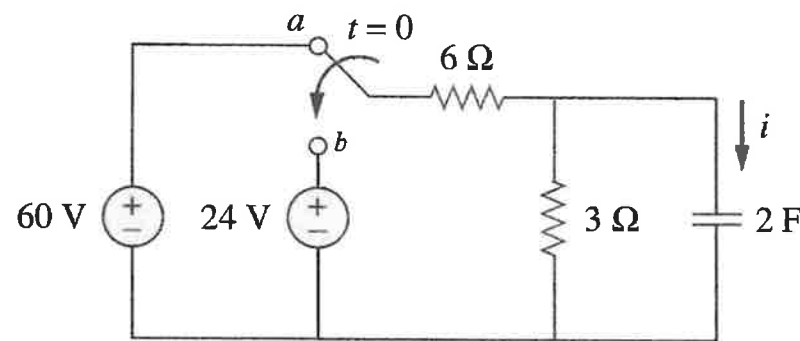
注意事項：

1. 本試題共 5 題，每題 20 分，共 100 分。
2. 不必抄題，作答時請將試題題號及答案依照順序寫在答案卷上。
3. 全部答案均須在答案卷之答案欄內作答，否則不予計分。

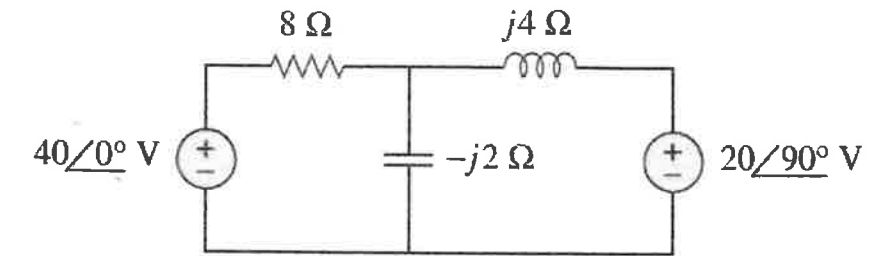
1. For the following circuit, determine i_1 , i_2 , i_3 , i_4 , and i_5 . (20%)



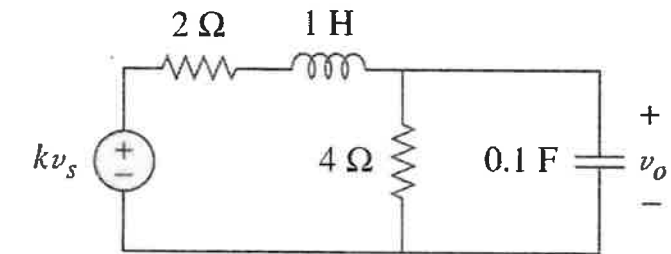
2. The switch in the following figure has been in position a for a long time. At $t = 0$, it moves to position b . Calculate $i(t)$ for all $t > 0$. (20%)



3. Find the average power absorbed by each of the five elements in the circuit below. (20%)



4. Consider the circuit below. Use the Laplace transform to find $H(s) = V_o(s)/V_s(s)$. Assume zero initial conditions. (20%)



5. Find the node voltages v_1 , v_2 , and v_3 in the following circuit. (20%)

