

淡江大學九十三年學年度轉學生招生考試試題 50-1

系列：電機工程學系三年級

科目：電路學

准帶項目請打「○」否則打「×」	
○	簡單型計算機

節次：7月14日第三節
本試題共 1 頁

1. Determine v_x in the circuit of Fig. 1. (25%)

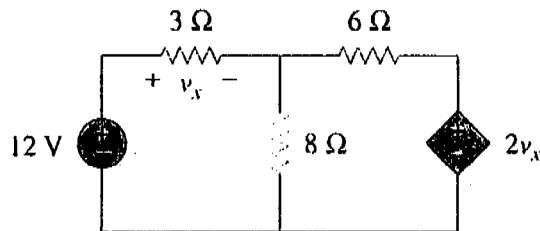


Fig. 1

2. The switch in Fig. 2 has been in position a for a long time. At $t = 0$, it moves to position b . Find $v(t)$ for $t > 0$. (25%)

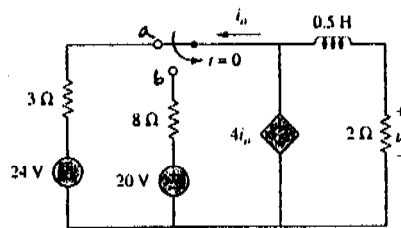


Fig. 2

3. The switch in Fig. 3 has been open for a long time and is closed at $t = 0$. Find $i(t)$ and $v(t)$ for $t > 0$. (25%)

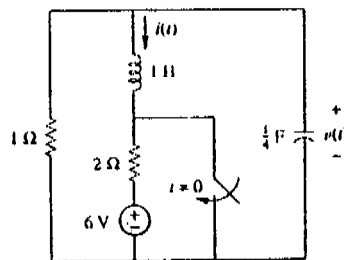


Fig. 3

4. Given that $v_s = 10u(t)$ V in the op amp circuit of Fig. 4 assuming zero initial condition, find $v_o(t)$ for $t > 0$. Let $R_1 = 1\Omega$, $R_2 = 2\Omega$, $C_1 = C_2 = 1$ F. (25%)

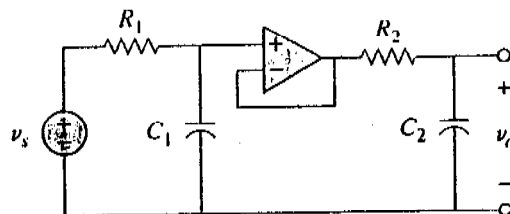


Fig. 4