

大同大學 105 學年度(寒)轉學入學考試試題

考試科目：電路學

系列：電機工程學系

第 1/1 頁

註：本次考試 不可以參考自己的書籍及筆記； 不可以使用字典； 不可以使用計算器

(1)(a) Find V_o in the circuit in Fig. 1 and (b) the power absorbed by the dependent source. (25%)

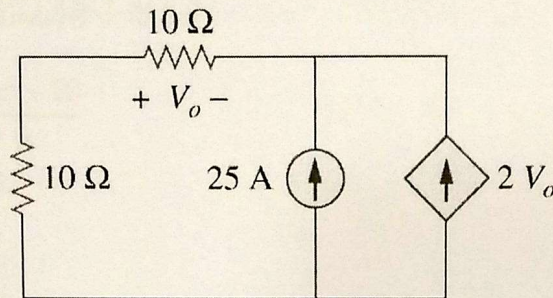


Figure 1

(2) Determine the voltage at the nodes in Fig.2. (25%)

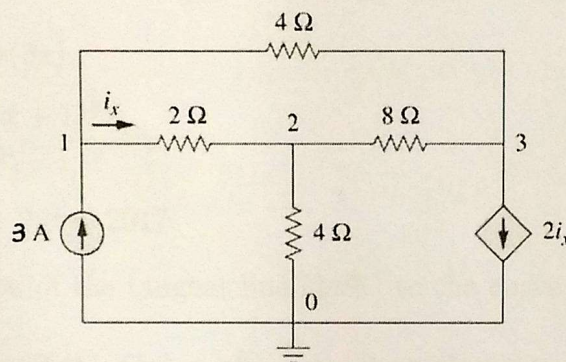


Figure 2

(3) Find I in the circuit of Fig. 3 using the superposition principle. (25%)

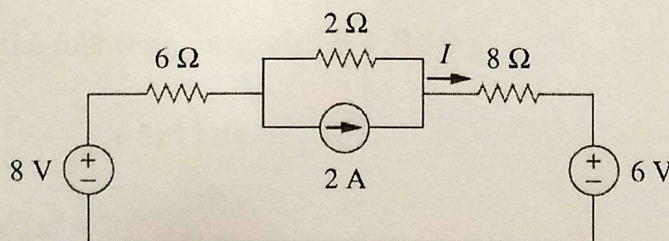


Figure 3

(4) The switch in the circuit in Fig. 4 has been closed for a long time, and it is opened at $t = 0$.
 (a) Find $v(t)$ for $t \geq 0$. (b) Calculate the initial energy stored in the capacitor. (25%)

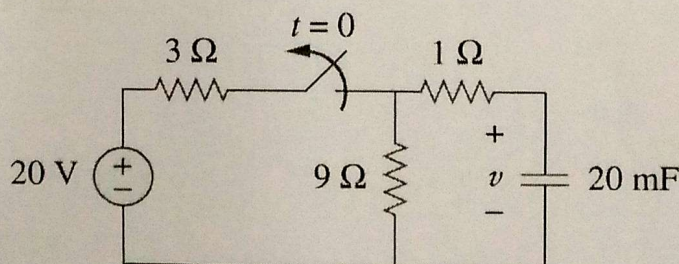


Figure 4