

大同大學 107 學年度(寒)轉學入學考試試題

考試科目：電路學

系別：電機工程學系

第 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) Find V_o in the circuit of Fig. 1. (20%)

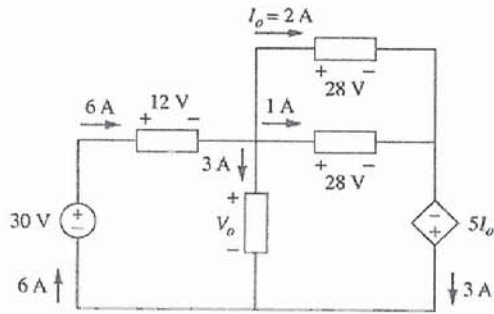


Figure 1

(2) Using nodal analysis, find v_o in the circuit of Fig. 2. (20%)

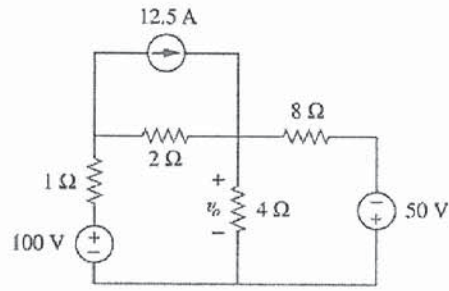


Figure 2

(3) Apply mesh analysis to find i in Fig. 3. (20%)

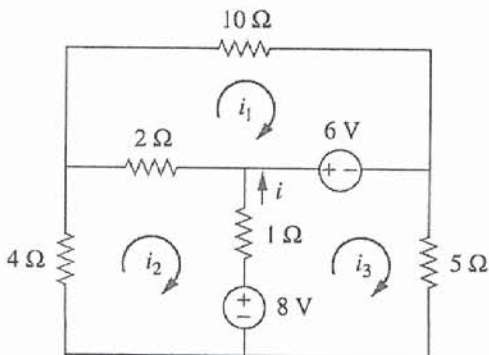


Figure 3

(4) Determine the maximum power that can be delivered to the variable resistor R in the circuit of Fig. 4. (20%)

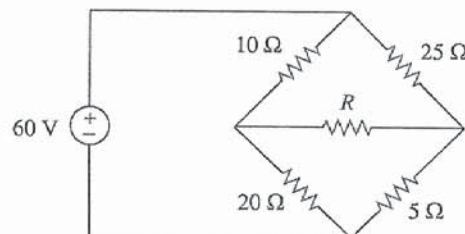


Figure 4

(5) For the network in Fig. 2, find the current, voltage, and power associated with the 20-k Ω resistor. (20%)

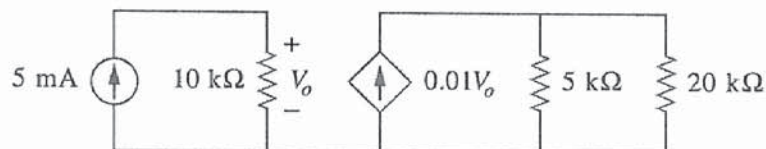


Figure 5