

大同大學 106 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

第全頁

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) Compute the power absorbed by each component of the circuit in figure 1. (20%)

(2) Use superposition to find V_x in the circuit of figure 2. (20%)

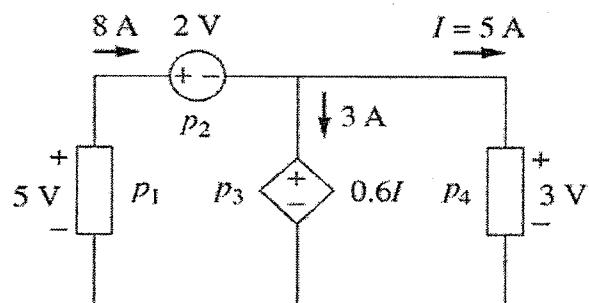


Figure 1

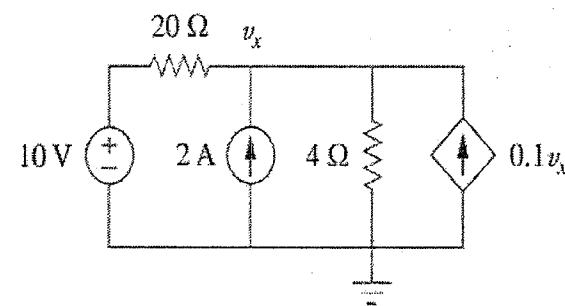


Figure 2

(3) Using Thevenin's theorem, determine the value of R_L that will draw the maximum power from the rest of the circuit in figure 3. Calculate the maximum power. (20%)

(4) For the circuit in figure 4, find the voltage across each capacitor. (20%)

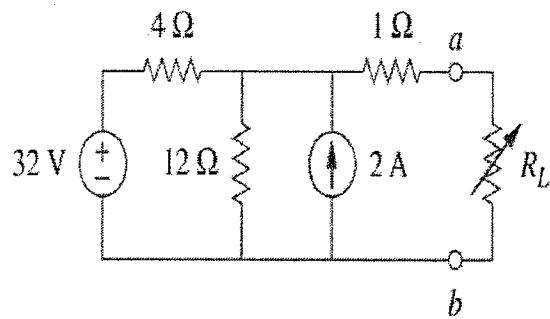


Figure 3

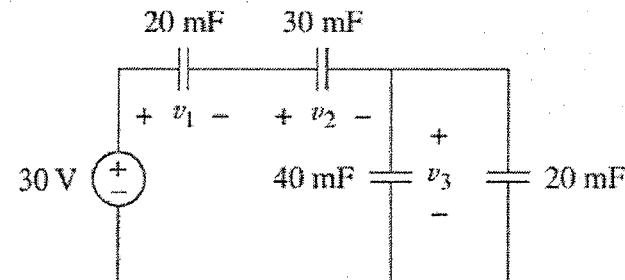


Figure 4

(5) Using mesh analysis, find the branch current I_1 , I_2 , and I_3 in figure 5. (20%)

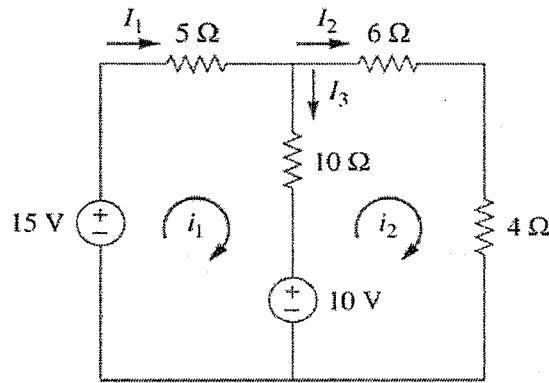


Figure 5