

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%)

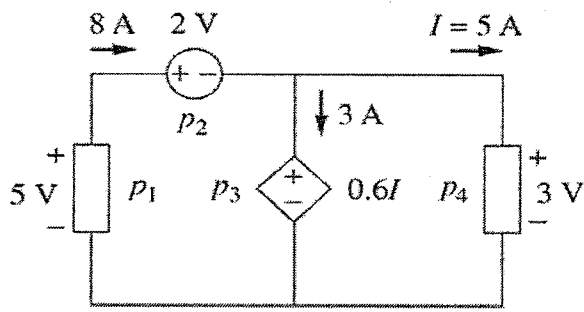


Figure 1

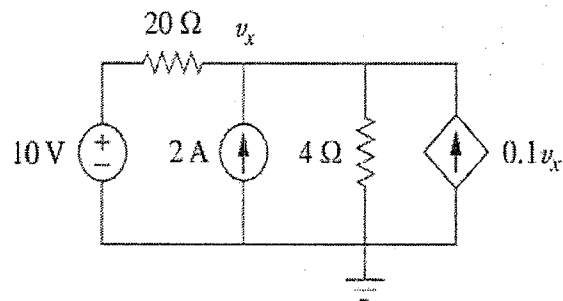


Figure 2

(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%)

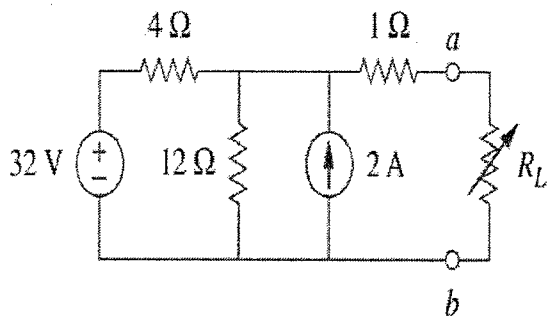


Figure 3

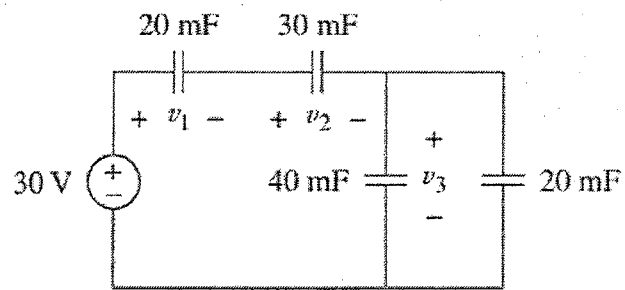


Figure 4

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

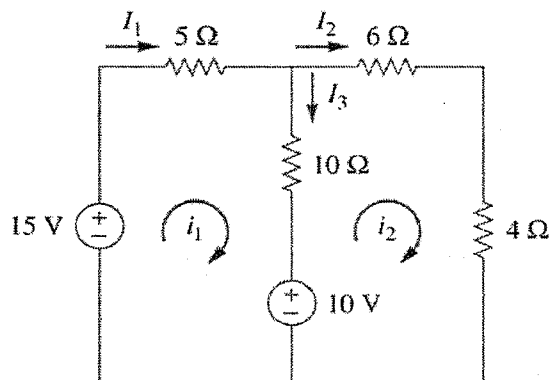


Figure 5