

國立虎尾科技大學 106 學年度第二學期博士班資格考試題

系別：動力機械工程系機械與機電工程博士班

第 1 頁 共 3 頁

科目：電路學

注意事項：

- (1) 本試題共有 7 題，任選 5 題作答，每題 20 分，合計一百分。
- (2) 請依序作答於答案卷上並註明題號，若未註明選答題號及超過規定題數時，謹採計作答順序較前之題目計分。
- (3) 可使用計算機 close book

1. Find the indicated currents for the network of Fig.1

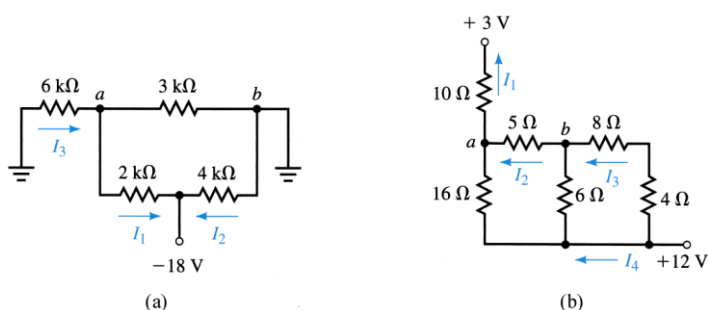


Fig.1

2. Find the R_{ab} and R_{bc} for the network of Fig.2

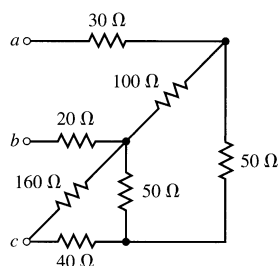


Fig.2

3. Find the indicated currents for the network of Fig.3

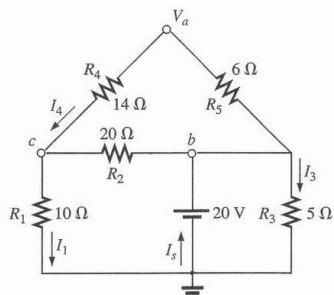


Fig.3

4. Find the I for the network of Fig.4

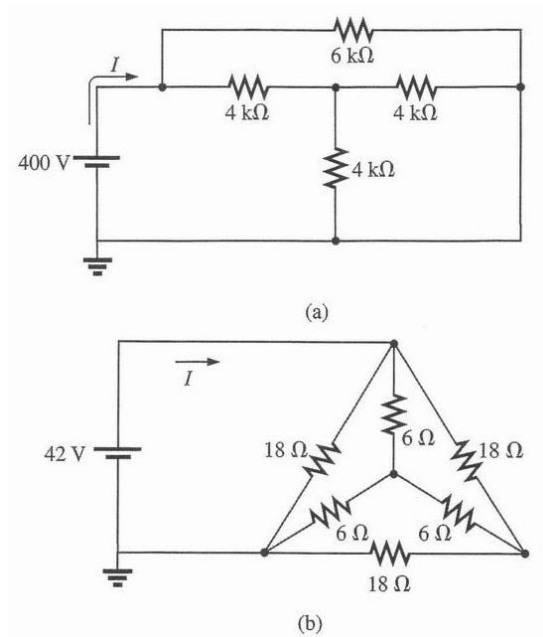


Fig.4

5. Find the I_{R_1} through R_1 for the network of Fig.5

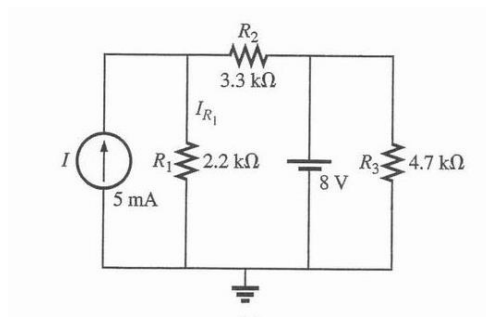


Fig.5

6. Find the v_1 for the network of Fig.6

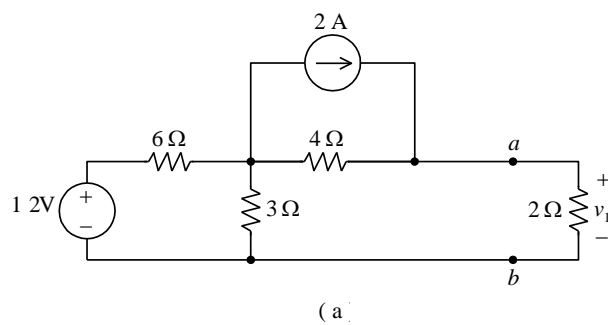


Fig.6

7. Find the v if $R_L = \frac{1}{3} \Omega$ for the network of Fig.7

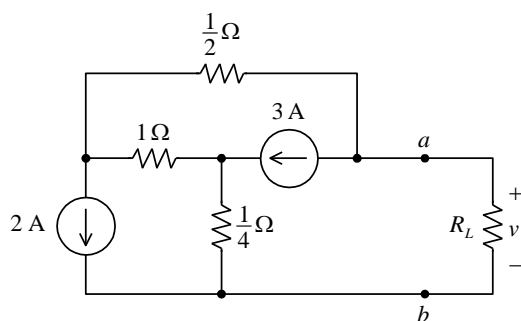


Fig.7