

國立虎尾科技大學 108 學年度第一學期博士班資格考試題

系別：動力機械系機械與機電工程博士班

科目：電路學

注意事項：

- (1) 本試題共有 10 題，答對每題 10 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 exam

1. Determine the values of V .

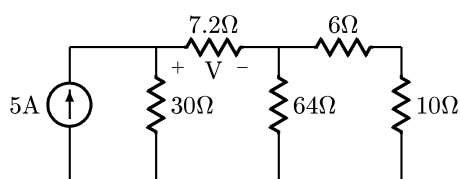


Fig. 1

2. Find the I for the network of Fig. 2

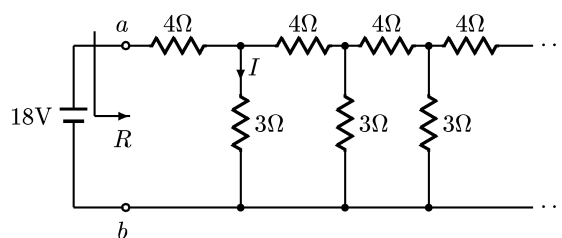


Fig. 2

3. If $V_A = -60V$, Find the V_3 and R_1 for the network of Fig. 3

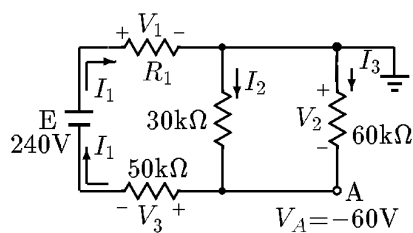


Fig. 3

4. Find the Current flow the \textcircled{A} and E of Fig.4

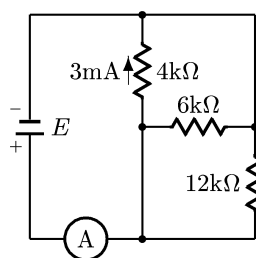


Fig.4

5. Find the V_{ab} of Fig.5

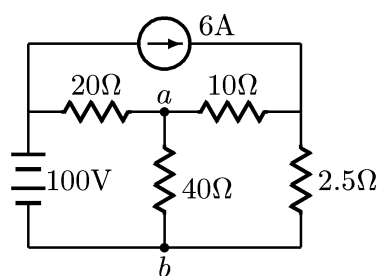


Fig.5

6. Find the V_{AB} of Fig.6

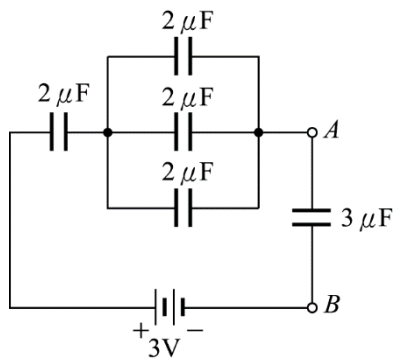


Fig.6

7. If $v(0^-) = 0V$, find the I when $t > 0$ of Fig.7

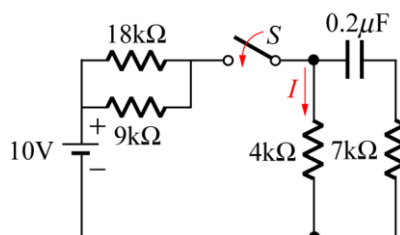


Fig.7

8. If S is opened when $t=0$, find the V_L when $t=0.2$ of Fig.8

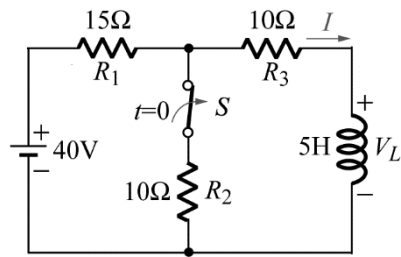


Fig.8

9. Find the I for the network of Fig.9

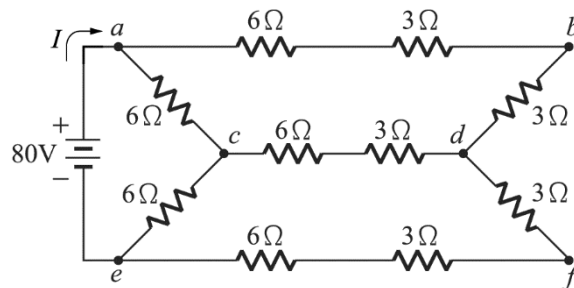


Fig.9

10. Find the values of R for maximum power transfer to R for the Fig. 10

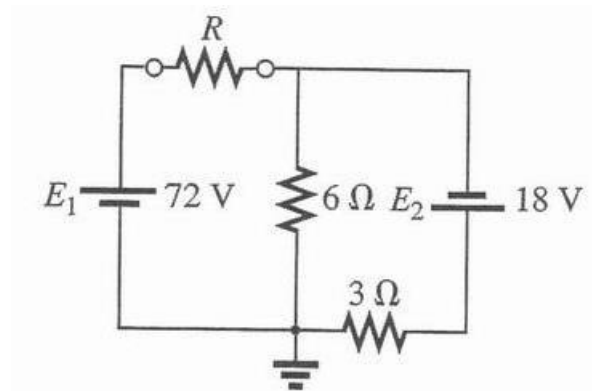


Fig.10