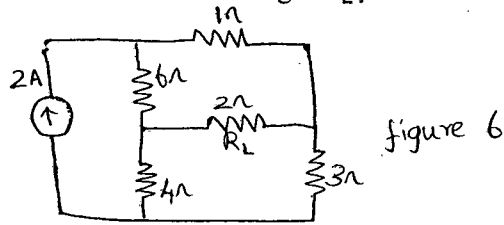
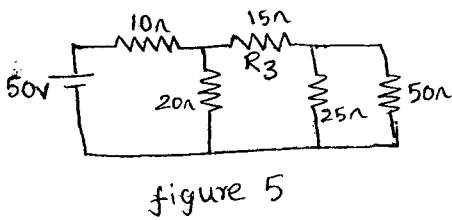




(or)

- b. i. For the circuit shown in figure 5. Find the voltage across  $R_3$ .  
ii. For the circuit shown in figure 6, find the current through  $R_L$ .



15. a. i. State Thevenin's and Norton's theorem.  
ii. For the circuit shown in fig.7, find  $R_L$  for maximum power transfer.

(or)

- b. i. Find the resistance across A and B in the circuit given in figure 8 using star-delta transformation.  
ii. What is the total impedance of a series RLC circuit comprised of  $R=8\Omega$ ,  $X_L=14\Omega$ , and  $X_C=20\Omega$  and draw the phasor diagram.

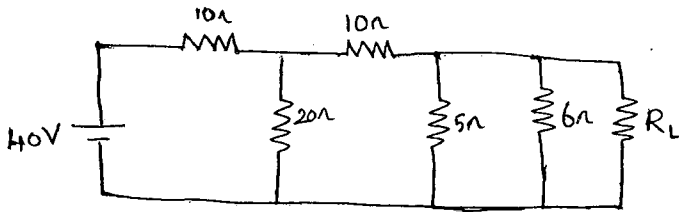


Figure 7

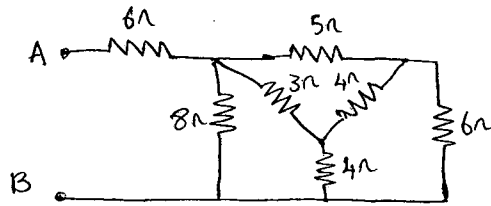


figure 8