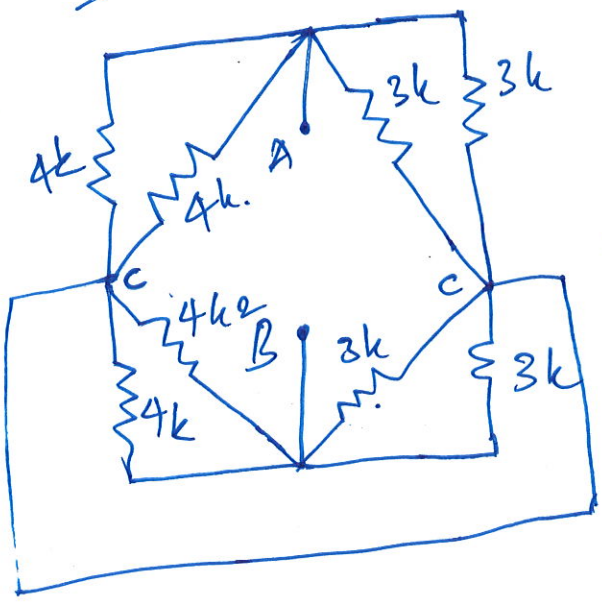
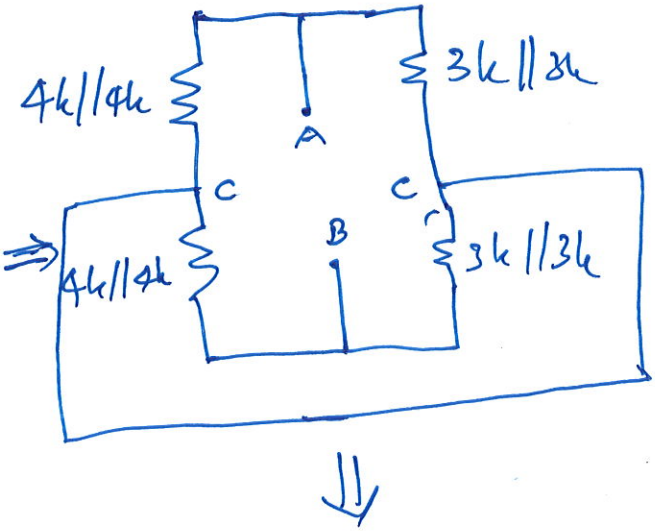
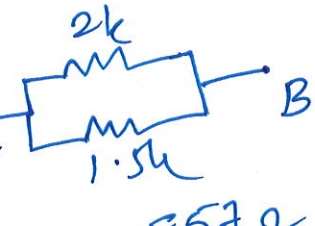
SOLUTIONS TO QUIZ -1

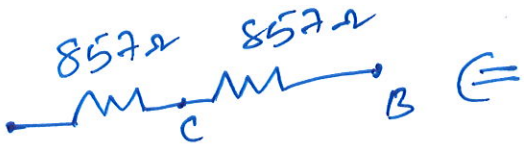
1. Fig 1





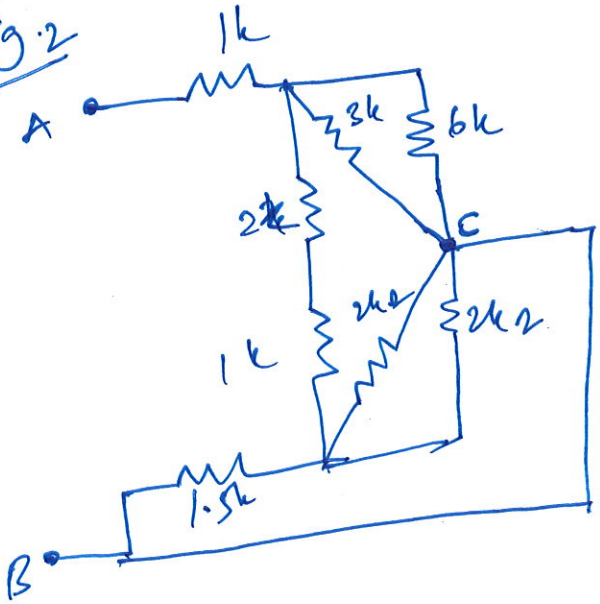


2k||1.5k = 857Ω



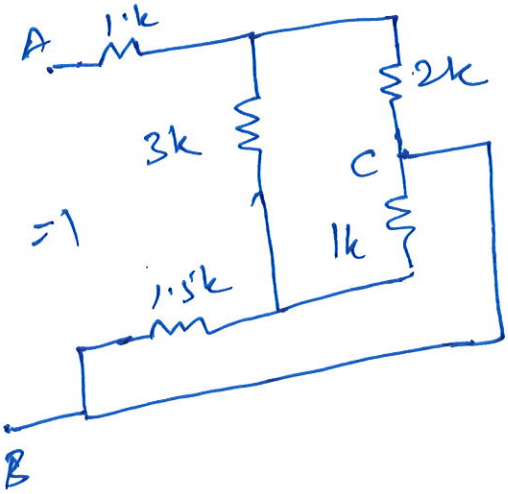
$R_{AB} \simeq 1.7\ k\Omega$

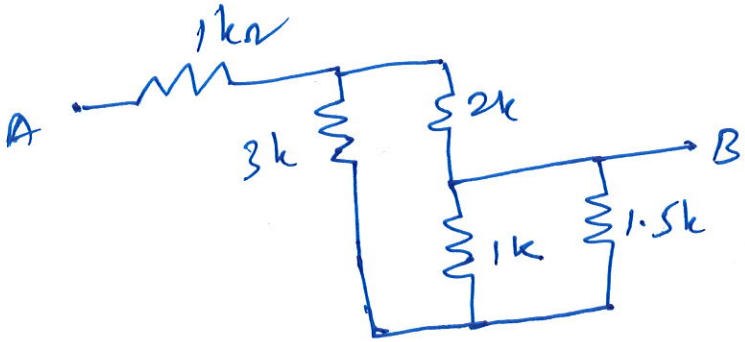
Fig 2

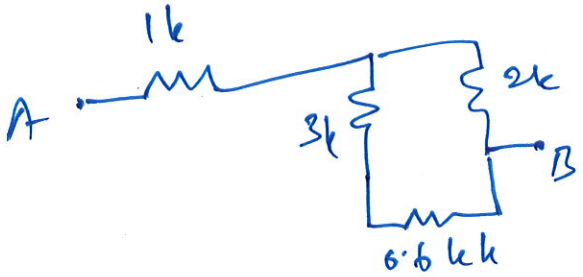


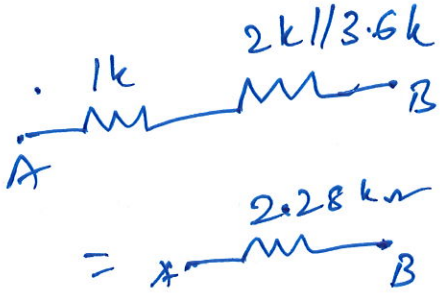
$3k||6k = \frac{3\times 6}{3+6} = 2k\Omega$

$2k||2k = 1k\Omega$

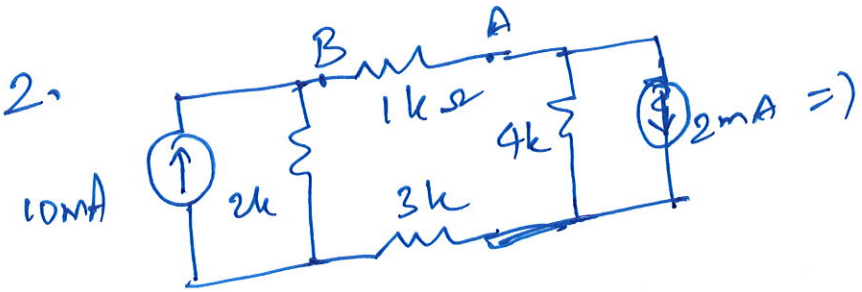








2.



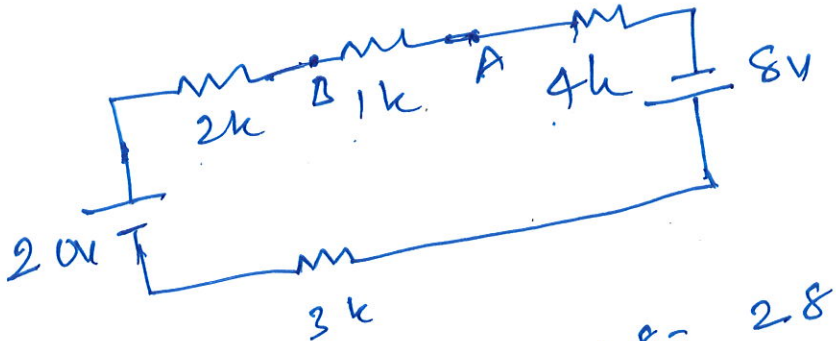
$V_{S1} = I_{S1} \cdot R_{S1}$

$= 10m \cdot \times 2k$

$= 20V$

$V_{S2} = I_{S2} \cdot R_{S2}$

$= 2m \times 4k = 8V$



$R_{TH} = 10k\Omega$

$V = 20 + 8 = 28V$

$I = \frac{28}{10k} = 2.8mA$