

P 3-4-8

Fig 1:

$$\left\{ \begin{array}{l} \text{KVL I: } 40i - 40j = 0 \end{array} \right.$$

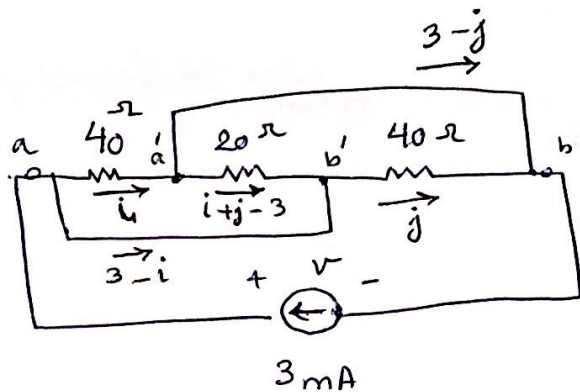
$$\left\{ \begin{array}{l} \text{KVL II: } 20i + 20j - 60 + 40j = 0 \end{array} \right.$$

$$\left\{ \begin{array}{l} i = j \end{array} \right.$$

$$\left\{ \begin{array}{l} i + j + 2j = 3 \rightarrow i + 3j = 3 \end{array} \right.$$

$$4j = 3 \rightarrow i = j = \frac{3}{4} \text{ (A)}$$

$$V = 40i = 40 \times \frac{3}{4} = 30 \text{ mV}$$



(Fig 1)

