Calculation:-

Applying KVL on Loop 1:-

$-30 + 330 \times I_1 + (I_1 - I_2) 470 = 0$

$800 I_1 - 470 I_2 = 3 \rightarrow (1)$.

Applying KVL in Loop 2:-

$-20 + I_2 \times 560 + (I_2 - I_1) \times 470 = 0$

$-470 I_1 + 1130 I_2 = 38$.

By using mesh Analysis.

$(1) \times 103 \Rightarrow 82400 I_1$.

$$\Delta = \begin{vmatrix} 800 & -470 \\ -470 & 1030 \end{vmatrix}.$$

$= 824000 - 220900$.

$= 603100$.

$$\Delta_1 = \begin{vmatrix} 30 & -470 \\ & 1030 \end{vmatrix}$$

$= 3090 + 2350$.

$\Delta_1 = 5440$.

$$\Delta_2 = \begin{vmatrix} 800 & 3 \\ -470 & 5 \end{vmatrix}.$$

$= 4000 + 1410 = 5410$

$$\pi_1 = \frac{\Delta_1}{\Delta} = \frac{5440}{603100}.$$

$$\pi_1 = 0.0092.$$

$$\pi_1 = 9.20 \times 10^{-3}.$$

$$\pi_2 = \Delta_2/\Delta = \frac{5410}{603100}.$$

$$\pi_2 = 0.0089.$$

$$\pi_2 = 8.9 \times 10^{-3}.$$