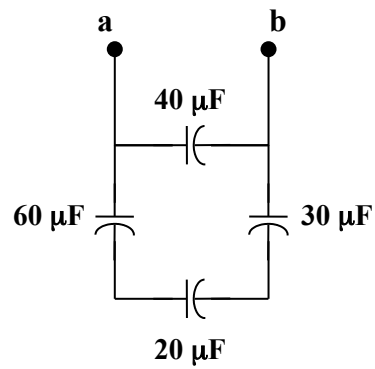


Chapter 6, Solution 22.

Combining the capacitors in parallel, we obtain the equivalent circuit shown below:



Combining the capacitors in series gives C_{eq}^1 , where

$$\frac{1}{C_{\text{eq}}^1} = \frac{1}{60} + \frac{1}{20} + \frac{1}{30} = \frac{1}{10} \quad \longrightarrow \quad C_{\text{eq}}^1 = 10\ \mu\text{F}$$

Thus

$$C_{\text{eq}} = 10 + 40 = \mathbf{50\ \mu\text{F}}$$