$$\frac{1}{C_{soln}} = \frac{1\times 6}{3\times 6} + \frac{1\times 6}{6\times 6} + \frac{1\times 6}{12\times 6} + \frac{1\times 6}{24\times 6}$$

$$\frac{1}{C_{soln}} = \frac{15}{24}$$

$$C_{soln} = \frac{24}{15} = \frac{8}{5}\ \mu F$$

$$C_{soln} = 1.6\ \mu F$$

$$C = \frac{Q}{\Delta V} \Rightarrow C_{soln} = \frac{Q}{\Delta V}$$

$$Q = C_{soln}\,\Delta V$$

$$= 1.6\times 10^{-6}\ \frac{C}{V} \times 10\ V$$

$$= 16\times 10^{-6}\ C$$

$$= 1.6\times 10^{-5}\ C$$