PP 5.1/179.

$L = 3.3\,mH = 3.3 \times 10^{-3}\,H$

$C_t = 51\,pF = 51 \times 10^{-12}\,F$

$V_R = 4V \qquad C_R = 1.8 \text{ for } 4V \le V_R \le 10V$

$f_{4V} = 1/2\pi\sqrt{LC} = 1/2\pi\sqrt{3.3\times10^{-3} \cdot 51\times10^{-12}}$

$f_{4V} = 1/2\pi\sqrt{1.68\times10^{-13}}$

$$\boxed{f_{4V} = 387.9\,kHz}$$

$C_{10V} = C_t/C_R = 51pF/1.8 = 28.3pF$

$f_{10V} = 1/2\pi\sqrt{LC}$

$f_{10V} = \dfrac{1}{2\pi\sqrt{3.3\times10^{-3} \cdot 28.3\times10^{-12}}}$

$f_{10V} = 1/2\pi\sqrt{9.34\times10^{-14}}$

$$\boxed{f_{10V} = 520.8\,kHz}$$

PP 5.2/18Ø.

Redo PP5.1 with $C_R = 1.Ø7$

$V_R = 4V$

$\boxed{f_{4V} = 387.9\,kHz}$ as nothing has changed.

NOTE: The frequency changes as $\sqrt{C_R}$. I figured this out and you can too.

If $C_R = 1.8$ (as in PP5.1)

$$f_{10V} = f_{4V} \times \sqrt{C_R} = 387.9\,kHz \times 1.34 = 52Ø.4\,kHz$$

For $C_R = 1.Ø7$

$$f_{10V} = f_{4V} \times \sqrt{C_R}$$

$$f_{10V} = 387.9\,kHz \times \sqrt{1.Ø7}$$

$$f_{10V} = 387.9\,kHz \times 1.Ø34$$

$$\boxed{f_{10V} = 4Ø1.25\,kHz}$$

Frequency range is reduced with lower C_R value.