(1) $\frac{V_o}{V_i} = \frac{\frac{1}{RCj\omega}}{\frac{1}{RCj\omega}+R} = \boxed{\frac{1}{1+RCj\omega}}$

(2) $\left|\frac{V_o}{V_i}\right| = \frac{\sqrt{(1)^2}}{\sqrt{1^2+(RC\omega)^2}} = \frac{1}{\sqrt{1+(RC\omega)^2}}$

$$\left|\frac{V_o}{V_i}\right|_{2KHz} = \frac{1}{\sqrt{1+\left[(1000\Omega)(1\times10^{-6}F)\left(2\pi\cdot 2000 \text{ cycles/sec}\right)\right]^2}}$$

$$= \frac{1}{\sqrt{1+[4\pi]^2}} = \frac{1}{\sqrt{158.9}} = \boxed{0.079}$$

(3) $\angle \left.\frac{V_o}{V_i}\right|_{2KHz} = -TAN^{-1}(RC\omega) = -TAN^{-1}(1000\Omega\cdot 1\times10^{-6}F\cdot 2\pi\cdot 2000Hz)$

$$= -TAN^{-1}(4\pi) = \boxed{-85.4^\circ}$$

(4) $-10dB \Rightarrow 20\,LOG\left|\frac{V_o}{V_i}\right| = -10dB$

$\therefore \left|\frac{V_o}{V_i}\right| = 10^{[-10/20]} = 10^{-0.5} = 0.316$

$$0.316 = \frac{1}{\sqrt{1+[(1000\Omega)(1\times10^{-6}F)(2\pi\cdot\omega)]^2}} \xrightarrow{\text{SOLVE}} \Rightarrow \omega = \boxed{}$$

(5) $\omega_c = \frac{1}{RC} = \frac{1}{1000\Omega\cdot 1\times10^{-6}F} = \frac{1}{0.001} = \boxed{1000 \text{ RAD/s}}$

$f_c = \frac{\omega_c}{2\pi} = \frac{1000 \text{ RAD/s}}{2\pi} = \boxed{159.2 \text{ Hz}}$