(5) $\Phi = \frac{Q_{int}}{\varepsilon_0}$ $\quad 1,84\,\mu C = 1,84 \times 10^{-6}\,C$

$$\frac{1,84 \times 10^{-6}\,C}{8,85 \times 10^{-12}\,C^2 Nm^2} = 8,85 \times 10^{-12}$$

$$\Phi = 207909,5\ Nm^2/C$$

$$\boxed{\Phi = 208\ \frac{KN m^2}{C}}$$

(4)

$$2\pi \cdot Ke \frac{Q}{A}\left[1 - \frac{x}{\sqrt{(R^2 + x^2)}}\right]$$

$$= 2\pi \cdot 9 \times 10^{-9} \cdot \frac{7 \times 10^{-4}}{\pi \cdot 0,052} \cdot \left[1 - \frac{0,3}{\sqrt{(0,05^2 - 0,3^2)}}\right]$$

$$\boxed{E = 685,75\ [N/C]}$$