



ИСПИТ ИЗ ОСНОВА ЕЛЕКТРОТЕХНИКЕ 1

05. 10. 2017. - Рјешења

1.

a) $Q_a = 4 \text{ nC}$, $Q_b = 16 \text{ nC}$, $Q_c = 20 \text{ nC}$.

б) $E_a \approx 360 \text{ k} \frac{\text{V}}{\text{m}}$, $E_b \approx 90 \text{ k} \frac{\text{V}}{\text{m}}$, $E_c \approx 72 \text{ k} \frac{\text{V}}{\text{m}}$.

в) $V_a = V_b = V_c = 3,6 \text{ kV}$.

2.

$$E'_0 = 6E_1.$$

$$E'_0 = 4E_0.$$

$$E_1 = \frac{2}{3} E_0.$$

3.

$$P_{R1} = 1 \text{ W},$$

$$P_{R2} = 640 \text{ mW},$$

$$P_{E1} = 1,2 \text{ W}, \text{ (генератор!)},$$

$$P_{E2} = 480 \text{ mW}, \text{ (генератор!)},$$

$$P_{I_g} = -40 \text{ mW}, \text{ (пријемник!)}. \quad \square$$

4.

$$R_1 = 250 \, \Omega.$$