



ИСПИТ ИЗ ОСНОВА ЕЛЕКТРОТЕХНИКЕ 1

16. 09. 2013. - Рјешења

1.

$$r_{23} = 1,67 \text{ cm.}$$

$$Q_2 = -4,4 \text{ pC.}$$

2.

$$W = \frac{\pi a^7 c^2}{4\epsilon_0} \left(\frac{a}{b} + \frac{24}{7} \right) \text{ J.}$$

3.

$$U' = 40 \text{ V,}$$

$$C' = 75 \text{ pF.}$$

4.

a) $I_1 = 60 \text{ mA}, I_2 = 100 \text{ mA}, I_3 = 0, I_4 = -40 \text{ mA.}$

б) $U_g = 17,2 \text{ V.}$

в) $P_{E1} = 720 \text{ mW}, P_{E3} = 0, P_{I_g} = 1,72 \text{ W.}$

5.

a) $E_1 = 40 \text{ V.}$

$$E_2 = 20 \text{ V.}$$

б) $I'_A = 4 \text{ A.}$

$$U'_V = 50 \text{ V.}$$

в) $P_X = 20 \text{ W}$

$$P_X = 0.$$

6.

$$W_e = 32 \text{ nJ.}$$