



ИСПИТ ИЗ ОСНОВА ЕЛЕКТРОТЕХНИКЕ 2

10. 07. 2018. - Рјешења

1.

a) $\vec{F}' = (4,43\vec{i} - 0,55\vec{k}) \mu \frac{\text{N}}{\text{m}}, \quad |\vec{F}'| = 4,47 \mu \frac{\text{N}}{\text{m}}, \quad \alpha = -7,15^\circ,$

б) $\Phi_{13\text{подузжено}} \approx 110 \text{ n} \frac{\text{Tm}^2}{\text{m}}.$

2.

a) $L_1 = 6,14 \text{ mH},$

б) $L_{12} = L_{21} = 6,14 \mu\text{H},$

в) $W_m \approx 307 \text{ nJ}.$

3.

a) $\Phi = 180 \mu\text{Tm}^2, \quad \Phi_1 = 120 \mu\text{Tm}^2, \quad \Phi_2 = 60 \mu\text{Tm}^2.$

б) $W_m = 25,2 \text{ mJ}.$

4.

$$f = \frac{1}{2\pi RC}.$$

5.

a) $R_p = 5 \Omega, \quad P_p = 100 \text{ W}.$

б) $R_p = 1 \Omega.$

6.

a) $\Delta I_{A1} = 0,58 \text{ A}, \quad \Delta I_{A2} = -0,168 \text{ A}, \quad \Delta I_{A3} = -0,168 \text{ A}.$

б) $\frac{S_{23}^{\text{ПО}}}{S_{23}^{\text{ПЗ}}} = 1,125.$