



ИСПИТ ИЗ ОСНОВА ЕЛЕКТРОТЕХНИКЕ 1

01. 09. 2014. - Рјешења

1.

a) $\sigma = 199,13 \frac{\text{nC}}{\text{m}^2}, \quad \sigma_{p1} = -132,75 \frac{\text{nC}}{\text{m}^2}, \quad \sigma_{p2} = 14,75 \frac{\text{nC}}{\text{m}^2}.$

б) $V_{\max} = 450 \text{ kV}.$

2.

$$b/a = e$$

3.

$$C = \frac{\pi \varepsilon_0 (1 + \varepsilon_r)}{\left(\frac{1}{a} + \frac{1}{d-a} \right)}.$$

4.

$$P_{Ig1} = 48 \text{ mW}.$$

5.

$$I_5 = 1,5 \text{ A}.$$

6.

a) $E = \frac{3}{25} \text{ V}.$

б) $P = \frac{3}{5} \text{ mW}.$

в) $Q = \frac{4}{5} \text{ nC}.$