



ИСПИТ ИЗ ОСНОВА ЕЛЕКТРОТЕХНИКЕ 1

18. 05. 2015. - Рјешења

1.

a) $d = R - a = 1,7 \text{ cm}$

б) $W_{uk} = 4,5 \text{ mJ}$.

2.

$$\varepsilon_{r1} \approx 11,44.$$

3.

$$V_p = 720 \text{ V},$$

4.

a) $E_T = U_{AB} = -(E_g + R_S I_S),$

$$R_T = R_{AB} = R_g + R_S.$$

$$I_N = -\frac{E_g + R_S I_S}{R_g + R_S},$$

$$G_N = \frac{1}{R_N}.$$

б) $E_T = -R_S \frac{E_g + R_S I_S}{R_g + R_S}.$

$$R_T = \frac{R_g R_S}{R_g + R_S}.$$

$$I_N = \frac{E_g}{R_g} + I_S,$$

$$G_N = \frac{1}{R_g} + \frac{1}{R_S}.$$

5.

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

6.

a) $R_v = 5800 \, \Omega$.

б) $E = -30 \, \text{V}$.