Formule iz Osnova Elektrotehnike
koje se mogu koristiti na međuispitima-1 (jesen 2006)

$$\epsilon_0 = 8.854 \cdot 10^{-12} \frac{As}{Vm}$$

$$\epsilon_r = \frac{\epsilon}{\epsilon_0}$$

$$F = \frac{Q_1 Q_2}{4\pi\epsilon d^2}$$

$$\vec{E} = \frac{\vec{F}}{Q}$$

$$E = \frac{\sigma}{\epsilon}$$

$$E = \frac{Q}{4\pi\epsilon r^2}$$

$$\varphi_A = \frac{W_p}{Q}$$

$$\varphi(x) = -E \cdot x + \varphi_0$$

$$U_{AB} = \varphi_A - \varphi_B$$

$$A_{12} = W_1 - W_2 = QU_{12}$$

$$C = \frac{Q}{U}$$

$$C = \epsilon\frac{S}{d}$$

$$W_C = \frac{QU}{2} = \frac{Q^2}{2C} = \frac{CU^2}{2}$$

$$I = \frac{Q}{t}$$

$$J = NQv$$

$$J = \kappa E = \frac{I}{S}$$

$$R = \frac{U}{I} = \frac{1}{G}$$

$$R = \rho\frac{l}{S}$$

$$G = \kappa\frac{S}{l}$$

$$R_\vartheta = R_{20}[1 + \alpha(\vartheta - 20)]$$

$$W = I^2 Rt$$

$$P = UI = I^2 R = \frac{U^2}{R}$$

$$\sum_n I_n = 0 \quad (\check{c}vor)$$

$$\sum_n U_n = 0 \quad (petlja)$$

$$R_s = R_1 + R_2$$

$$R_p = \frac{R_1 R_2}{(R_1 + R_2)}$$

$$C_{uk} = \frac{C_1 C_2}{(C_1 + C_2)} \quad (ser.)$$

$$C_{uk} = C_1 + C_2 \quad (par.)$$

$$U_{p.h} = I_{k.s} R_i$$

$$\eta_{naponski} = \frac{R_t}{R_t + R_i}$$

$$\eta_{strujni} = \frac{R_i}{R_t + R_i}$$

$$R_1 = \frac{R_{12} R_{31}}{(R_{12} + R_{23} + R_{31})}$$

$$R_2 = \frac{R_{23} R_{12}}{(R_{12} + R_{23} + R_{31})}$$

$$R_3 = \frac{R_{31} R_{23}}{(R_{12} + R_{23} + R_{31})}$$

$$R_{12} = R_1 + R_2 + \frac{R_1 R_2}{R_3}$$

$$R_{23} = R_2 + R_3 + \frac{R_2 R_3}{R_1}$$

$$R_{31} = R_3 + R_1 + \frac{R_3 R_1}{R_2}$$

$$U_{12} = \frac{\sum_{i=1}^{n}(E_i G_i + I_i)}{\sum_{i=1}^{n} G_i}$$

$$E_T = R_T I_N$$

$$R_T = R_N$$