

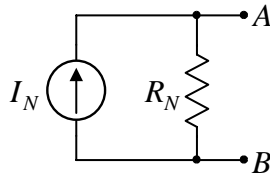
# Osnovi elektronike SI

## Rešenja zadatka – jun 2008.

### I deo

#### 2. zadatak

a)  $I_N = -4 \text{ A}$ ;  $R_N = 4 \text{ } \Omega$ ;



b)  $P_{6\Omega} = 15,36 \text{ W}$

### II deo

#### 2. zadatak

a)  $I_C = 10 \text{ mA}$ ;  $I_E = 10,1 \text{ mA}$ ;  $I_B = 0,1 \text{ mA}$ ;  $V_E = 6 \text{ V}$ ;  $V_B = 6,7 \text{ V}$ ;  $V_C = 12 \text{ V}$ ;

b) 
$$a_v = \frac{\frac{\beta_0 + 1}{r_\pi} (R_E \parallel R_P)}{1 + \frac{\beta_0 + 1}{r_\pi} (R_E \parallel R_P)} \approx 0,993$$
;  $R_{ul} = R_1 \parallel R_2 \parallel (r_\pi + (1 + \beta_0)(R_E \parallel R_P)) \approx 9,68 \text{ k}\Omega$ ;

$$R_{izl} = R_E \parallel \frac{r_\pi}{1 + \beta_0} \approx 2,56 \text{ } \Omega$$

### III deo

#### 2. zadatak

$$v_G = \frac{R_1 R_3 R_5}{R_2 R_4} i_G$$