()
$$V_{i2} = (n+hfe)_{ib} R_E || R_T - g_m V_{qs} R_D || rbe = i_b . rbe$$

$$V_{ue} = V_{qs} + g_m V_{qs} R_S$$

$$A_{V} = \frac{V_{12}}{V_{ne}} = \frac{V_{12}}{ib} \cdot \frac{\dot{U}_{65}}{V_{65}} \cdot \frac{\dot{U}_{65}}{V_{ne}} = \frac{1 + h_{fe} \cdot R_{e} ||R_{T}}{V_{e}} \cdot \frac{-g_{m} R_{D} ||r_{be}}{r_{be}} \cdot \frac{1}{1 + g_{m} R_{S}}$$

d)
$$\gamma_{c_q} = C_q \cdot R_q$$

$$\gamma_{c_g} = C_g \cdot R_g \cdot \left(R_T + R_E \left| \left(\frac{r \cdot b_e + R_p}{1 + h_e} \right) \right) \right)$$