C.L. Ing. Elettrica - C.L. Ing. Elettronica
ELETTROTECNICA

COMPITO DEL 26 GIUGNO 2008

1) Il circuito in figura 1 è a regime quando al tempo t=0 s apre l'interruttore K. Calcolare la tensione $v_{C2}(t)$ per t>0.

$\langle v_{C2}(t) = (-1+8t)e^{-4t} + 1\ \text{V} \rangle$

$\gamma = 2, \quad C_1 = 0.5\,\text{F}, \quad C_2 = 0.25\,\text{F}, \quad R_0 = R_1 = R_2 = 0.5\,\Omega, \quad I_g = 2\,\text{A}.$

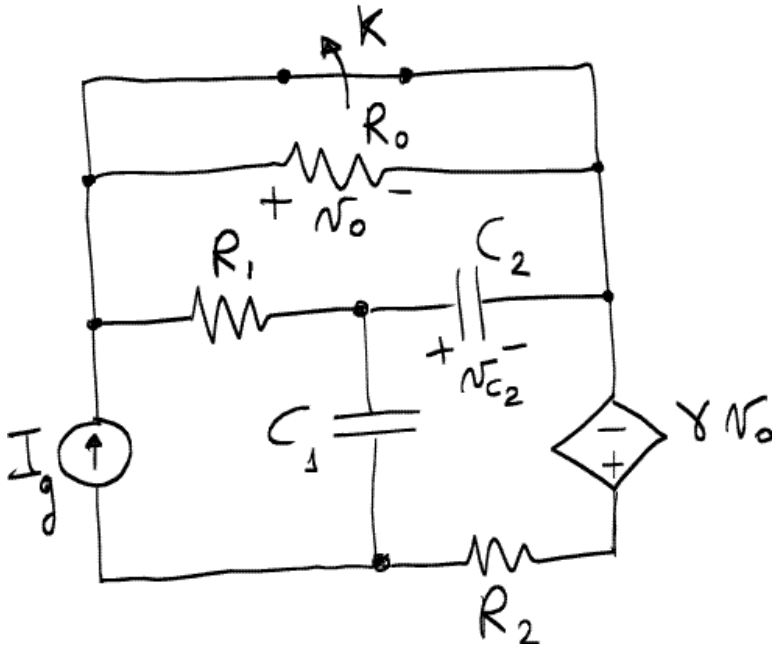

fig. 1

2) Data la rete in regime sinusoidale di figura 2, calcolare R ed X_M.

$\langle R = 2\,\Omega \quad X_M = 1\,\Omega \rangle$

$R_0 = 1\Omega, \quad X_0 = -4\,\Omega, \quad X_1 = 2\,\Omega, \quad X_2 = 2\,\Omega, \quad \dot{I}_0 = 3 + j4\,\text{A}, \quad P = 50\ \text{W}, \quad Q = -75\ \text{VAR}.$

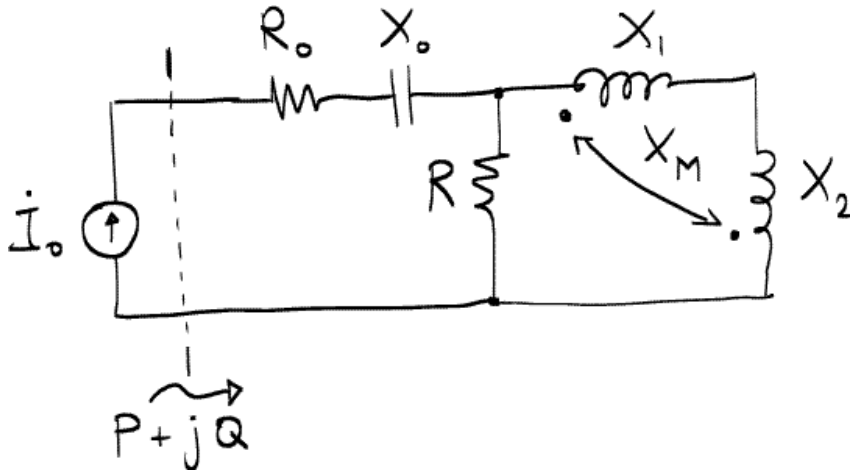

fig. 2