

ESERCIZIO 1

E1=17 V, E2=14 V
A=18 mA
R1=5 kohm, R2=2 kohm
R3=4 kohm, R4=4 kohm
R5=4 kohm

ReqE1=7 kohm, ReqE2=6.22222 kohm, ReqA=1.35714 kohm
I1_E1=2.42857 mA, I1_E2=-1 mA, I1_A=2.57143 mA
I2_E1=-1.21429 mA, I2_E2=2.25 mA, I2_A=-5.78571 mA
VA_E1=-2.42857 V, VA_E2=4.5 V, VA_A=24.4286 V
PE1=68 mW, PE2=-66.5 mW, PAE=477 mW convenzione dei Generatori

ESERCIZIO 2

E=230 V, $\phi_{E1}=\pi/6$, $\omega=314$ rad/s
R1=14 ohm, R2=5 ohm
R3=6 ohm, R4=3 ohm
L=15 mH, C=140 microF

Caso 1:

V00'=50.1901 PHI 139.107 V
J1=84.5371 PHI -30 A
J2=28.4551 PHI -60 A
J3=17.5213 PHI -90 A
J4=50.1901 PHI 19.1066 A
J5=44.2635 PHI -81.7868 A
J6=60.321 PHI 153.004 A
I1=120.923 PHI -3.94468 A
I2=58.8108 PHI -153.562 A
I3=76.2311 PHI 153.089 A
P1=21.1591 kW
P3=25.4432 kW
P=46.6024 kW
Q=26.6972 kVAR
cosphi=0.867703

Caso 2:

I1=123.373 PHI -12.0899 A
I2=58.8108 PHI -153.562 A
I3=85.5992 PHI 142.572 A