EEN ~~180~~
CIRCUIT
ANALYSIS

FINAL EXAM
2 HOURS

NDU
ECCE DEPARTMENT
(NON ECCE)

NOTE1: OPEN BOOK, OPEN NOTES.
NOTE2: SHOW ALL WORK IN ORDER TO RECEIVE FULL CREDIT.
NOTE3: START EACH PROBLEM ON A NEW PAGE.

P1. 15 Pts. In the circuit shown in Fig.P1, $i_s(t)$ is $300 \sin(10^4 t - 45)$ mA. Find $i_1(t)$, $i_2(t)$, and $v_0(t)$.
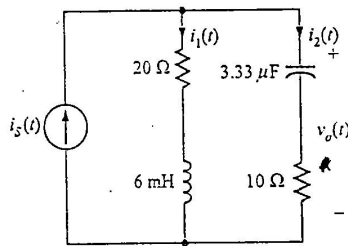

Fig.P1.

2. 20 Pts. Find $i_L(t)$ for $t \geq 0$ in the circuit shown in Fig.P2..
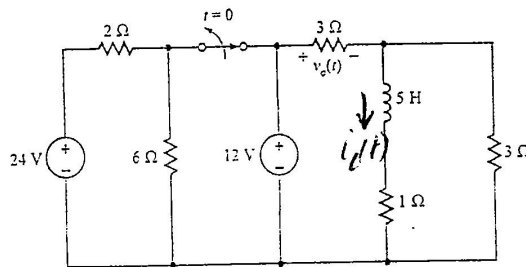

Fig.P2.

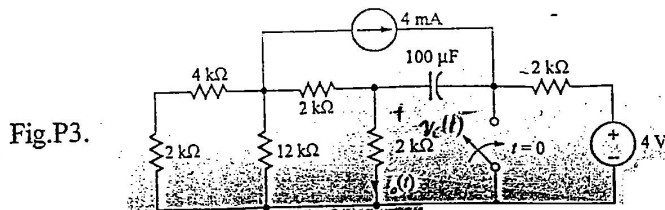P3. 20 Pts. Find $v_c(t)$ in the network shown in Fig.P3 for $t \geq 0$.

Fig.P3.

4. 20 Pts. Find R_L for maximum power transfer and find the maximum power.

Fig.P4.
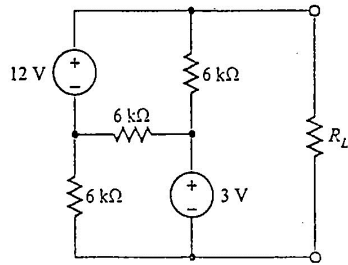
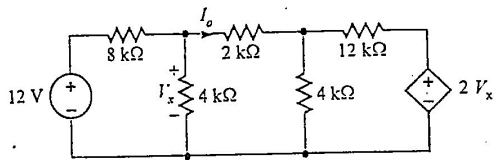5. 15 Pts. Use Thevenin theorem to find I_0 in the circuit shown in Fig.P5.

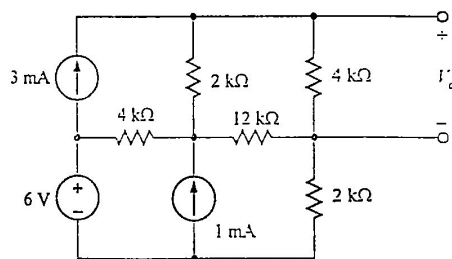Fig.P5.

6. 10 Pts. Find V_0 in the network shown in Fig.P6.

Fig.P6.