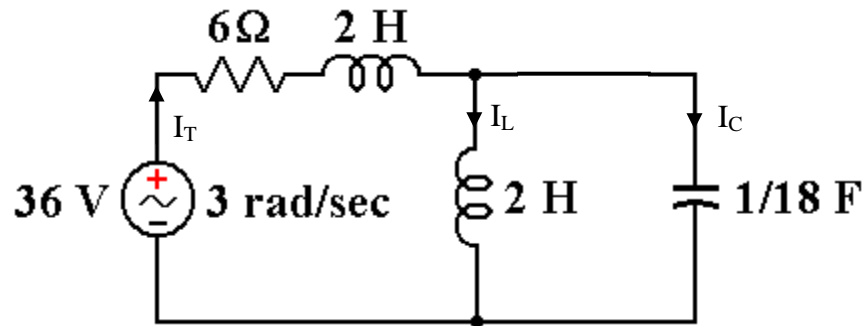


EE 201 Final Exam –Summer Term 1427/1428 H

Name:-

ID Number:-

1) For the circuit shown below, find I_T .



a) 6 A b) $5.69 \angle -18.4^\circ$ A c) $5.69 \angle 18.4^\circ$ A d) 0 A e) All wrong

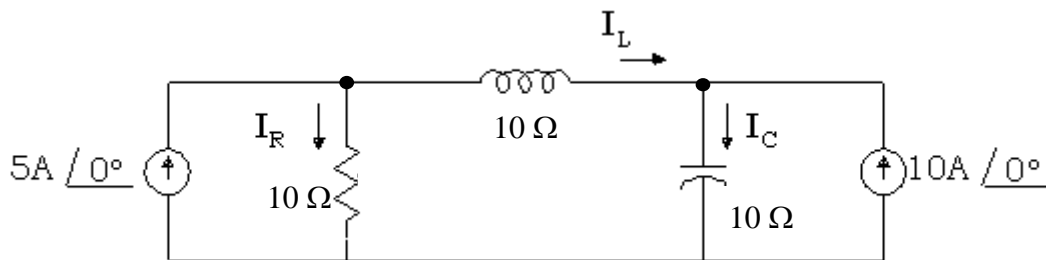
2) For the circuit shown in problem 1, find I_L .

a) 0 A b) $18 \angle -90^\circ$ A c) $j 6$ A d) $-j 6$ A e) All wrong

3) For the circuit shown in problem 1, find I_C .

a) 0 A b) $18 \angle 90^\circ$ A c) $-j 6$ A d) $j 6$ A e) All wrong

4) For the circuit shown below, find I_L .



a) $5 \angle 0^\circ$ A b) $5 + j 10$ A c) $15 - j 15$ A d) -10 A e) All wrong

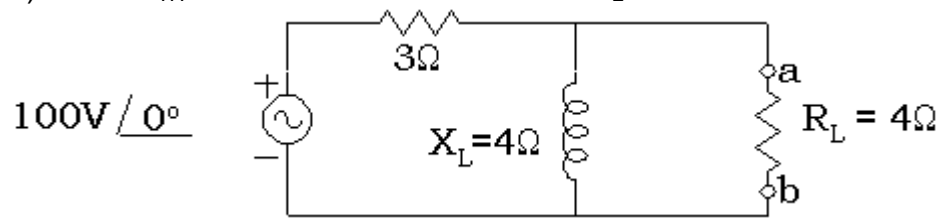
5) For the circuit in problem 4, find I_R

a) $5 \angle 0^\circ$ A b) $5 - j 10$ A c) $j 10$ A d) $-j 10$ A e) All wrong

6) For the circuit in problem 4, find I_C

a) $10 \angle 0^\circ$ A b) $15 - j 10$ A c) $15 + j 10$ A d) $j 10$ A e) All wrong

7) Find E_{TH} external to the load resistor R_L .

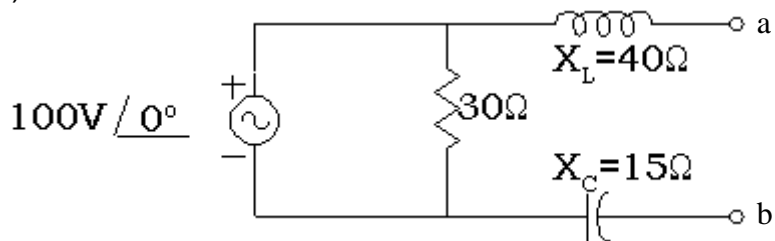


a) $15 \angle 30^\circ$ b) $80 \angle 45^\circ$ c) $80 \angle 36.87^\circ$ d) $80 \angle -36.87^\circ$ e) All wrong

5) Find Z_{TH} external to the load resistor R_L for the circuit of problem 4.

a) $4 \angle 90^\circ$ b) $3 + j 4$ c) $2.4 \angle 36.87^\circ$ d) $2.4 \angle -36.87^\circ$ e) All wrong

6) Find E_{TH} at terminals a & b.

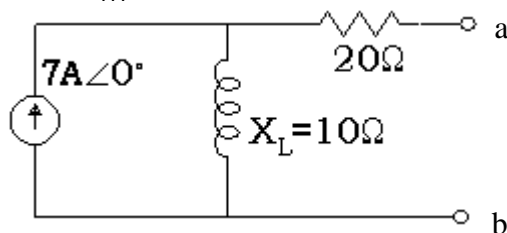


a) $3.333 \angle 0^\circ$ b) $300 \angle 0^\circ$ c) $100 \angle 36.87^\circ$ d) $100 \angle 0^\circ$ e) All wrong

7) Find Z_{TH} for the circuit of problem 6 at terminals a & b.

a) $30 + j 25$ b) $30 - j 25$ c) $-j 25$ d) $j 25$ e) All wrong

8) Find E_{TH} for the circuit shown below at terminals a & b.

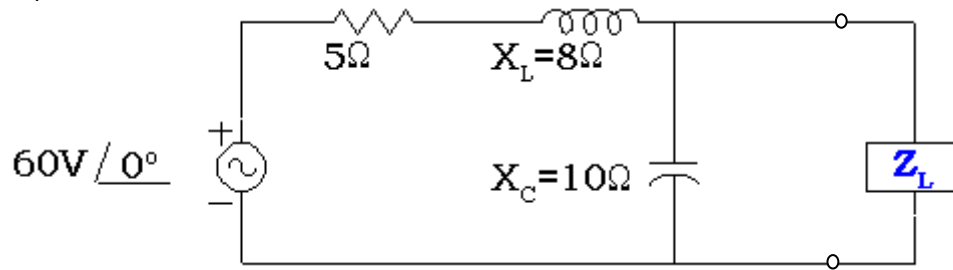


a) 70 b) $-j 70$ c) $j 70$ d) $70 \angle 30^\circ$ e) All wrong

9) Find Z_{TH} for the circuit in problem 6 at terminals a & b.

- a) $30\ \Omega$ b) $j\ 10\ \Omega$ c) $20 - j10\ \Omega$ d) $20 + j10\ \Omega$ e) All wrong

10) Find the value of Z_{TH} for the circuit below external to Z_L .

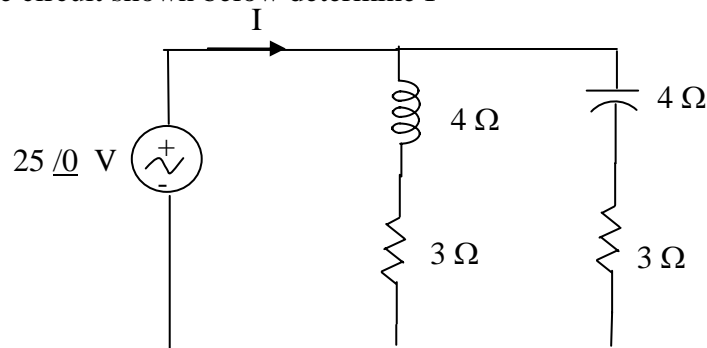


- a) $17.5 \angle 10.2^\circ\ \Omega$ b) $5 + j\ 2\ \Omega$ c) $5 - j2\ \Omega$ d) $17.5 \angle -10.2^\circ\ \Omega$ e) All wrong

11) Find the value of Z_L for the circuit in problem 10 which will make power in Z_L maximum.

- a) $17.5 \angle 10.2^\circ\ \Omega$ b) $5 + j\ 2\ \Omega$ c) $5 - j2\ \Omega$ d) $17.5 \angle -10.2^\circ\ \Omega$ e) All wrong

12) For the circuit shown below determine I

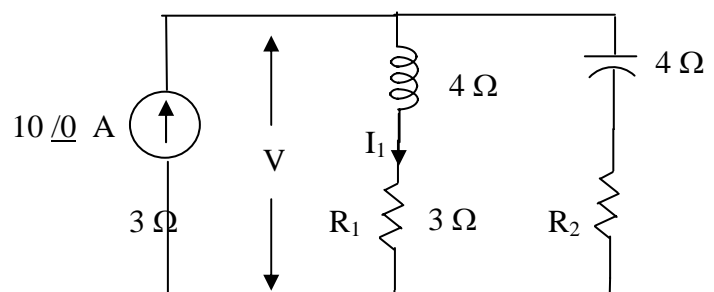


- a) $6.25 \angle -90^\circ\ \text{A}$ b) $6 \angle 0^\circ\ \text{A}$ c) $3 - j4\ \text{A}$ d) $3 + j4\ \text{A}$ e) All wrong

13) For the circuit in problem 12, determine average power delivered by the source.

- a) 100 W b) 75 W c) 130 W d) 150 W e) All wrong

14) For the circuit shown below determine V.



a) $70 \angle 0^\circ$ V b) $50 \angle 53.13^\circ$ V c) $41.67 \angle 0^\circ$ V d) $70 \angle 36.87^\circ$ V e) All wrong

15) For the circuit in problem 14 determine I_1 .

a) $2 \angle -53.13^\circ$ A b) $8.33 \angle 53.13^\circ$ A c) $8.33 \angle -53.13^\circ$ V d) $5 \angle 0^\circ$ V e) All wrong