



# COLLEGE OF ENGINEERING & TECHNOLOGY

Department: Electrical and Computer Control Engineering

Lecturer : Electrical circuit staff

Course : Electrical circuit II

Course Code: EE 232

Time :2 hours

Date : 19 / 1 / 2015

Total Marks :

1- Compute  $V_o$  in the circuit of Fig. 1 using mesh analysis. (A.5, B.2) [8 marks]

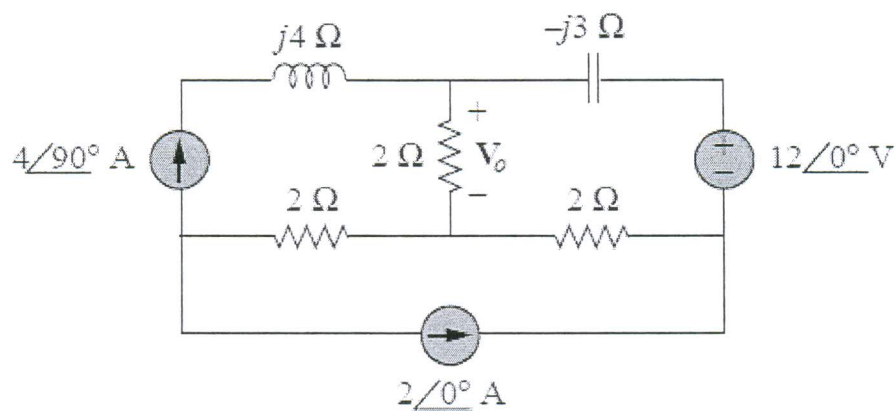


Fig.1

2- Find the  $I_o$  using source transformation then find the average and reactive power in 60 Ω resistor. (A.5,B.2) [8 marks]

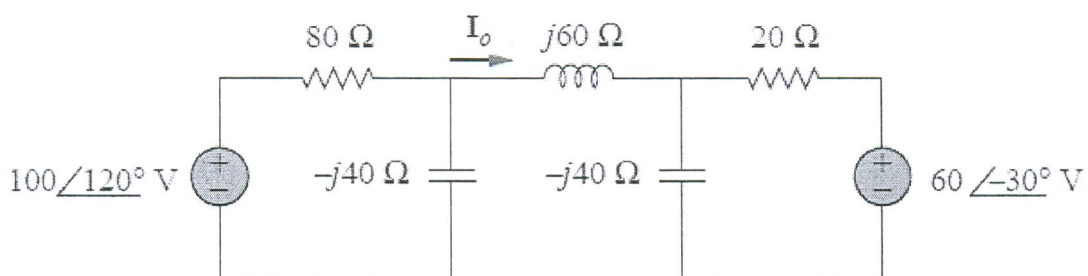


Fig. 2

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Lecturer: Staff	<i>[Signature]</i>	6/1/2015
Course Coordinator : Prof.Dr. Samah el Safty	<i>[Signature]</i>	6/1/2015
Head of Department: Prof.Dr. Hamdy Ashour	<i>[Signature]</i>	6/1/2015

3- In the circuit of Fig. 3 , find the line currents  $I_a$ ,  $I_b$  and  $I_c$  . (A.5, B.2) [8 Marks]

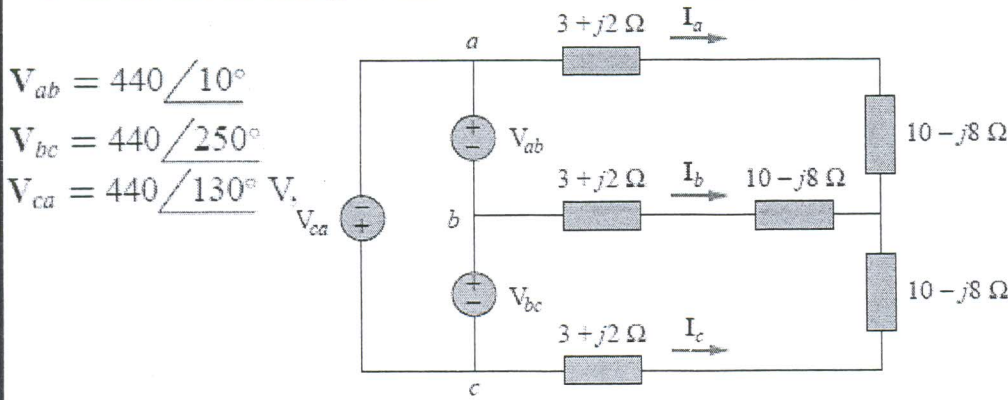


Fig. 3

4- Refer to the unbalanced circuit of Fig. 4. Calculate: (A.5, B.2) [8 Marks]

- (a) the line currents
- (b) the real power absorbed by the load
- (c) the total complex power supplied by the source

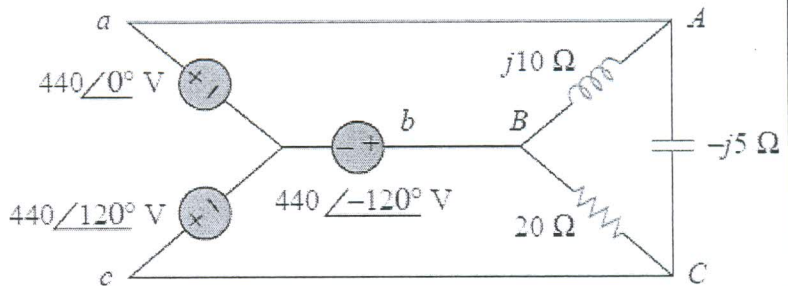


Fig. 4

5. The switch in Fig. 5 moves from position  $a$  to  $b$  at  $t = 0$ . Find  $i(t)$  for  $t > 0$  and the initial energy stored in the inductor after 0.1 second. (A.5, B.2) [8 Marks]

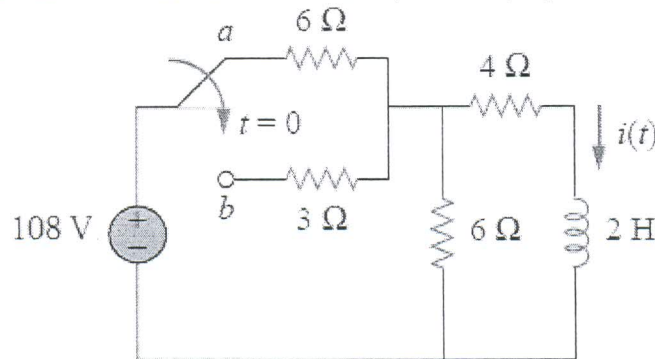


Fig. 5

BEST REGARDS

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