

المواظرة



KafferElshikha University  
 Faculty of Engineering  
 Electrical Engineering Department  
 final Exam 2015-2016, 1st Year 1st semester

Subject: Circuit 1  
 Time Allowed: 1.5 hours  
 Examiner: Dr.S.Gharib  
 Date: 2 / 1 / 2017.

**Q1**

For the circuit in Fig. 1, obtain the Thevenin equivalent circuit as seen from terminals: a-b then calculate the maximum power transfer delivered to the load between terminals b-c.

**Q2**

Determine the Norton equivalents at terminals a-b of the circuit in Fig. 2

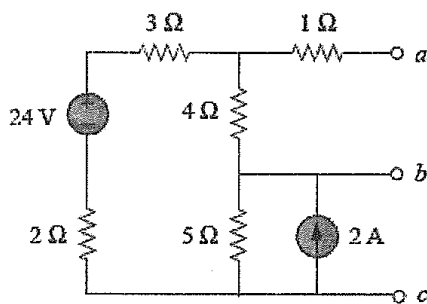


Fig.1

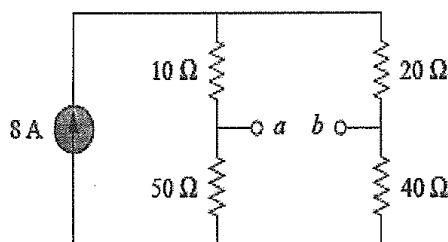


Fig.2

**Q3**

In the circuit of Fig. 3, find  $V_s$  if  $i_o = 2 \cos(50t)$

**Q4**

Using nodal analysis, find  $i_o(t)$  in the circuit in Fig.4.

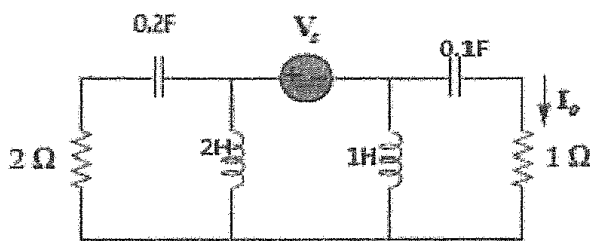


Fig.3

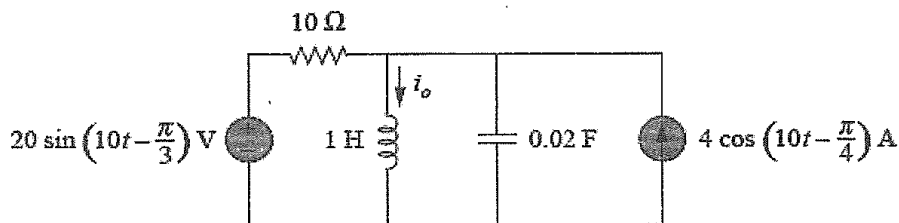


Fig.4