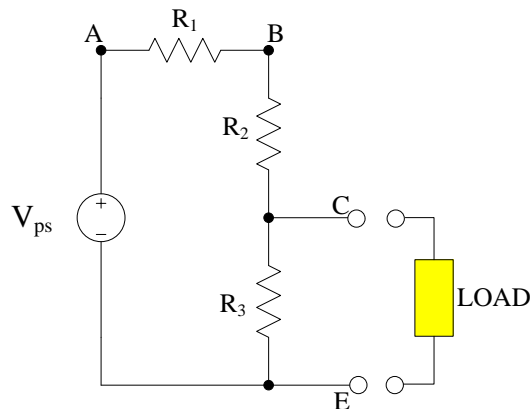


**School of Information, Computer and Communication Technology**  
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**ECS204 Quiz 2 Sample**

*Rules:* Closed book. Closed notes. No Calculator. Do not cheat. Do not panic.

1) Let  $R_1 = 20 \Omega$ ,  $R_2 = 30 \Omega$ ,  $R_3 = 50 \Omega$ , and  $V_{ps} = 100 \text{ V}$ . Obtain the Thevenin and Norton equivalent circuits of the circuit in Figure 1 with respect to terminals C and E. In particular, find the values of  $V_{TH}$ ,  $R_{TH}$ ,  $I_N$ , and  $R_N$  as defined in the lab manual. Put your answers in the table below.



**Figure 1** The circuit for verifying Thevenin's and Norton's theorems in Lab 02.

$V_{TH}$	
$R_{TH}$	
$I_N$	
$R_N$	

2) Suppose that the LOAD in Figure 1 is a  $25 \Omega$  resistor. Find the current  $I_L$  that passes through the load when the load is connected across terminals C and E. Put your answer in the box below.

$I_L$	
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