

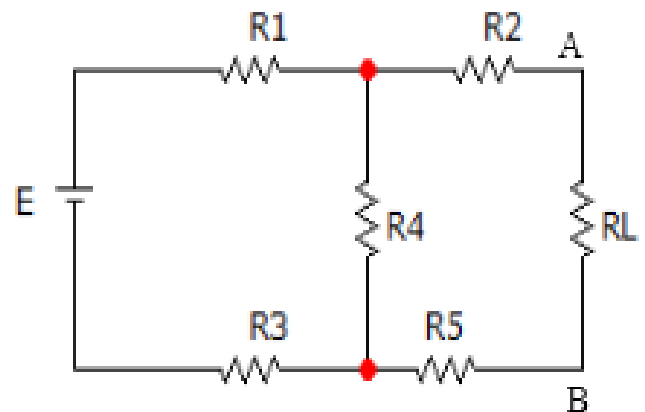
Exam : Fundamental Electronic 1

Exercise 1 (7pts)

Consider the following circuit:

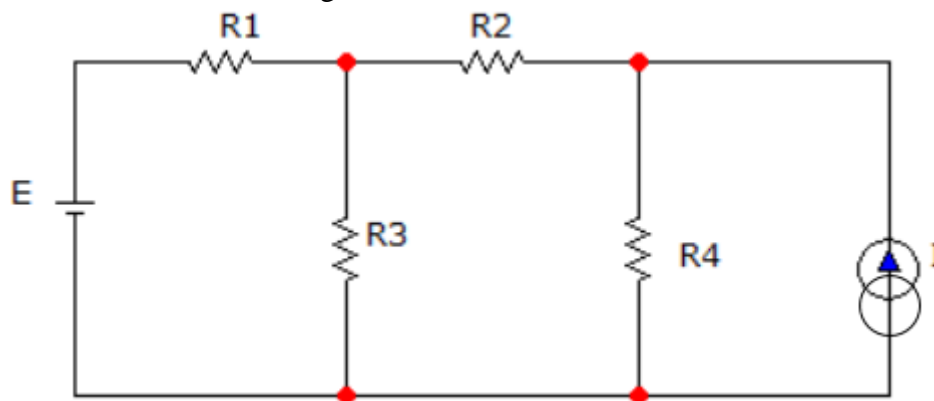
We give: $E=30V$, $R1=5\Omega$, $R2=4\Omega$, $R3=5\Omega$, $R4=10\Omega$, $R5=6\Omega$, $R_L=5\Omega$.

- 1) Calculate the current intensity in the branch AB by applying **Thevenin theorem**.



Exercise 2 (7pts)

Consider the circuit shown in the figure below:



We give: $I=4A$; $E = 20 V$, $R1 = 5\Omega$, $R2 = 10\Omega$, $R3 = 10\Omega$, $R4= 20\Omega$

- 1) Find the current flowing through $R4$ using the **superposition theorem**.

Exercise 3 (6pts)

Consider the following circuit:

- 1) **Analyze** the circuit, and **draw** $V_s(t)$ and $V_e(t)$ in the same graph.

$V_e(t)=12\sin\omega t$.

