Department of Electrical Systems Engineering

Speciality: Biomedical engineering-S3-Module : Fundamental Electronic 1



2023/2024

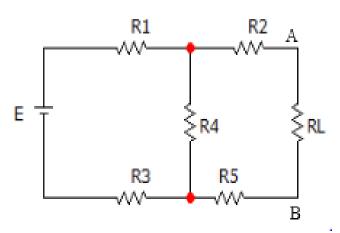
Exam: Fundamental Electronic 1

Exercise 1 (7pts)

Consider the following circuit:

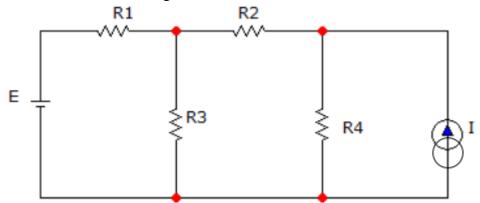
We give: E=30V, $R1=5\Omega$, $R2=4\Omega$, $R3=5\Omega$, $R4=10\Omega$, $R5=6\Omega$, $RL=5\Omega$.

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** Vs(t) and Ve(t) in the same graph.

Ve(t)=12sinwt.

