<u>ORAL WORK N°2 ON CONDUCTORS</u>

<u>PART 1</u>

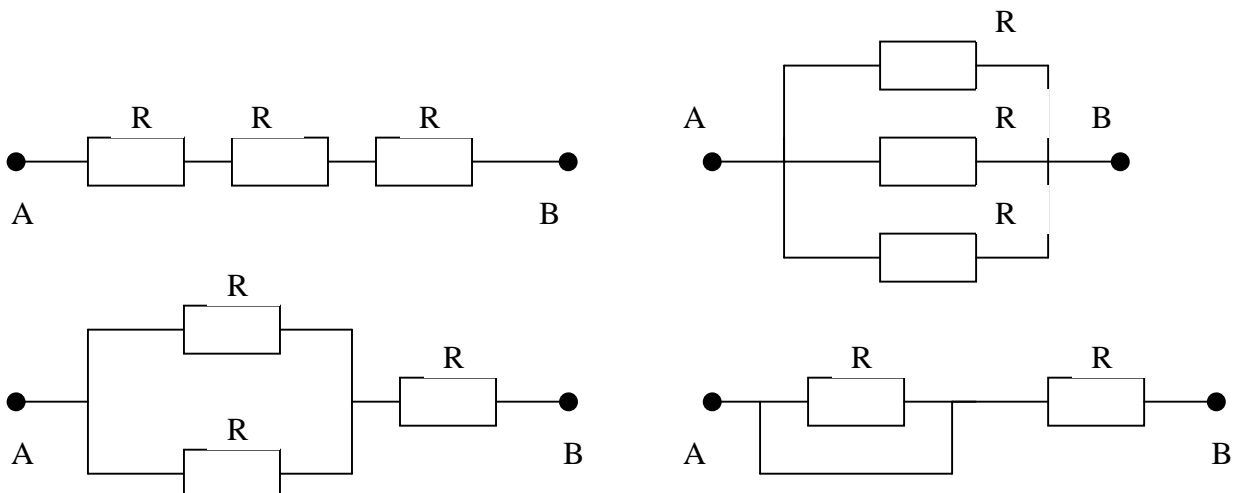a) Complete the following :

If U against I graph of a conductor is a straight line passing through the origin, the conductor is a .... one. An example is the ....

If U against I graph of a conductor is not a straight line but symmetrical about the origin, the conductor is a .... - ....one. An example is a ....

If U against I graph of a conductor is not a straight line and non - symmetrical about the origin, the conductor is a .... - .... - ....one. An example is a ....
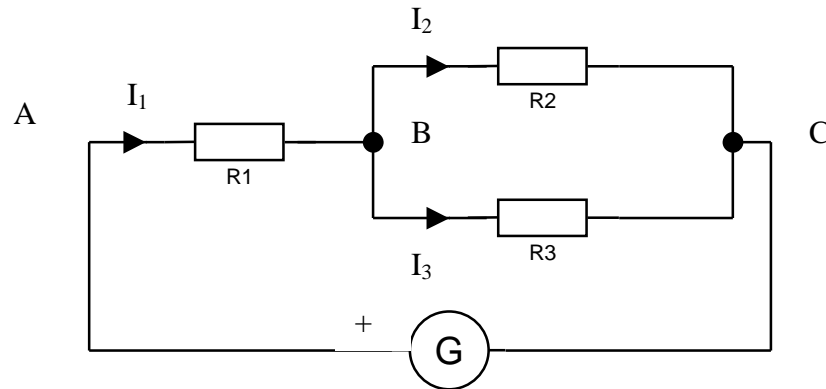
b) Sketch I against U graph of a diode.

c) Calculate the equivalent resistance of the following circuits with R = 1 kΩ.

PART 2

The following circuit is given :

The generator delivers a constant voltage V_{AC} = 10 V.
R_1 = 75 Ω , R_2 = R_3 = 50 Ω.

a) Note V_{AB}, V_{BC} and V_{AC} on the circuit.
b) Calculate the equivalent resistance of the circuit.
c) Apply Ohm's law to calculate I_1.
d) Calculate the equivalent resistance of R_2 and R_3 and hence calculate V_{BC}.
e) Calculate I_2 and I_3.