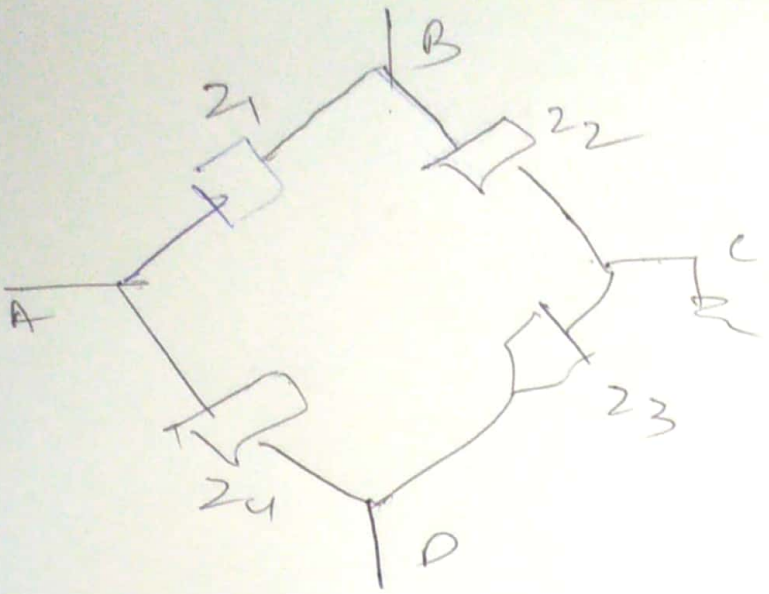


A to C $\rightarrow$ $Z_1+Z_3 \,||\, Z_4+Z_3$

A to B $\rightarrow$ $Z_1 \,||\, (Z_2+Z_3+Z_4)$

A to D $\rightarrow$ $Z_4 \,||\, (Z_1+Z_2+Z_3)$

Balanced

$$Z_2 \cdot Z_4 = Z_1 Z_3$$

$$R_2 || C_2 \Rightarrow \frac{R_2 \times \frac{1}{j\omega C_2}}{R_2+\frac{1}{j\omega C_2}} \Rightarrow \frac{R_2}{1+j\omega C_2 R_2}$$

$$R_1+C_1 = R_1+\frac{1}{j\omega C_1} \Rightarrow R_1-\frac{j}{\omega C_1} \qquad Y_1 = -j$$