

JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY
Electronics and Communication Engineering
Electrical Science-II (15B11EC211)
Tutorial Sheet: 5

Q.1 [CO2] Obtain the ABCD parameter for the network in Fig. 1.

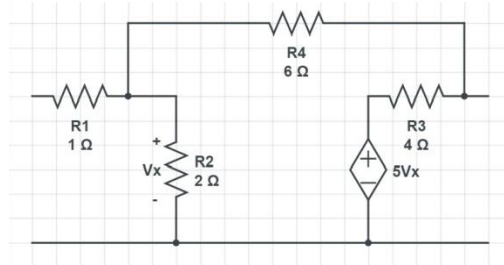


Fig.1

Q.2 [CO2] For the bridge circuit in Fig. 2, obtain:

- (a) the z parameters
- (b) the h parameters
- (c) the transmission parameters

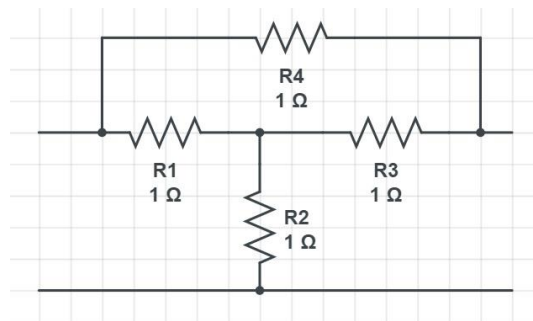


Fig.2

Q.3 [CO2] Find the Transmission parameters for the circuit in figure 3

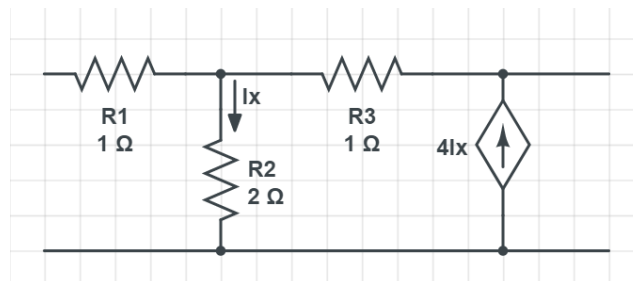


Fig. 3

Q.4 [CO2] A 2-port network is represented by ABCD parameters shown in following matrix

$$\begin{bmatrix} V_1 \\ I_1 \end{bmatrix} = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} \begin{bmatrix} V_2 \\ -I_2 \end{bmatrix}$$

If port-2 is terminated by $R_L = 4 \Omega$. Find the input impedance ($\frac{V_1}{I_1}$) seen at port-1.

Q5. [CO2] For the given the transmission parameters

$$[T] = \begin{bmatrix} 3 & 20 \\ 1 & 7 \end{bmatrix}$$

obtain the $[z]$, $[h]$, and $[y]$ parameters.

Q.6 [CO2] What is the y parameter presentation of the circuit in Fig. 3?

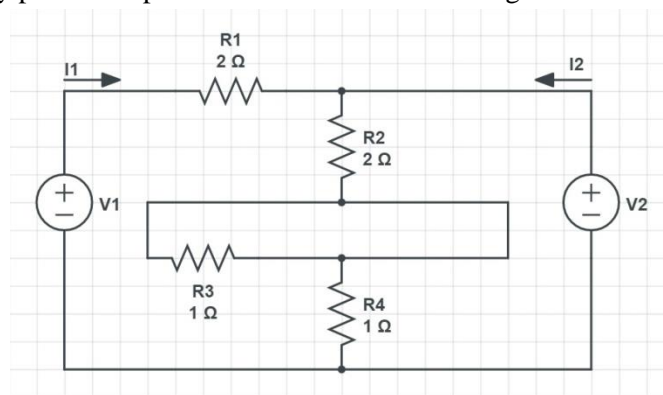


Fig.4