Computer Aided Design

Sheet (1)

1- Refer the circuit shown in Figure 1. Draw the graph, possible trees and their co-tree.
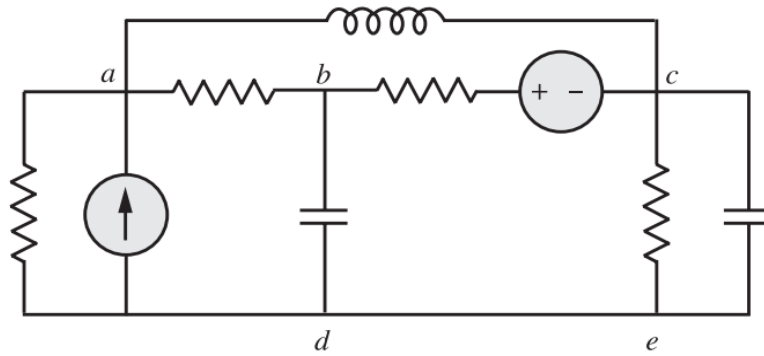

Figure 1

2- Refer the network shown in Figure 2 Obtain the corresponding incidence matrix, tie set matrix and cut set matrix.
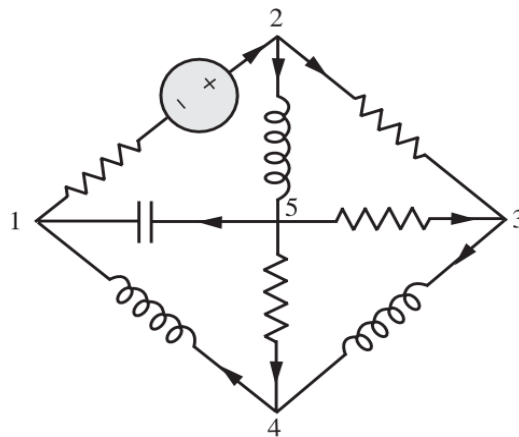

Figure 2

3- For the incidence matrix shown below, draw the graph.

$$A = \begin{bmatrix} 1 & 0 & 0 & 0 & 1 & 0 & 0 & 1 \\ 0 & 1 & 0 & 0 & -1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & 0 & 0 & -1 & 0 \end{bmatrix}$$