## Indian Institute of Technology, Delhi <br> EEL 202: Circuit Theory <br> July 28, 2014

For the graphs shown below:

1. Determine a tree for the graph.
2. Write out the matrix equations for the fundamental cut-sets method.
3. Write out the matrix equations for the fundamental loops method.
4. Replace every branch of the tree with a 1-V voltage source, and every chord outside the tree with a $1-\mathrm{A}$ current source. Show that $\Sigma v_{x y} i_{x y}=$ 0 .

