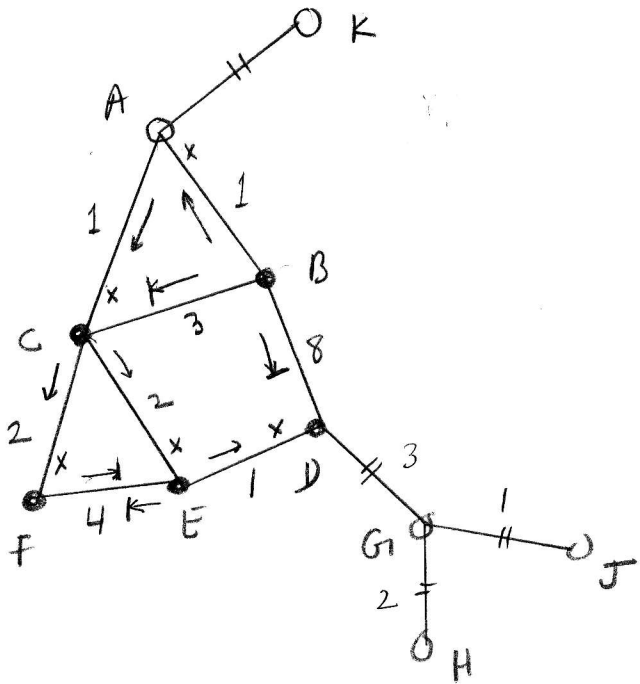
Worked Out Example 4.7- Forming a Source Based Tree for Multicast



Nodes A,K,G,H , J do not have hosts belonging to the multicast group. Nodes B,C,D,E,F have such

B is the source of a multicast message to the group

K being a leaf node will send a tree-prune message to A; therefore A will not propagate any group message on AK. However, A is not a leaf node and so cannot send any tree-prune message even though it too does not have hosts belonging to the multicast group

H and J being leaf nodes send tree-prune messages to G. G is now effectively a leaf node and will therefore send a tree-prune message to D. Thus there will be no group traffic on DG,GH and GJ

Once the tree has been pruned to avoid unnecessary traffic, a multicast message from the source B will propagate following RPF as shown.

Note that A is obliged to carry group traffic even though it does not have hosts belonging to the group since A is on the shortest path from B to C. This is why it could not send a tree-prune message