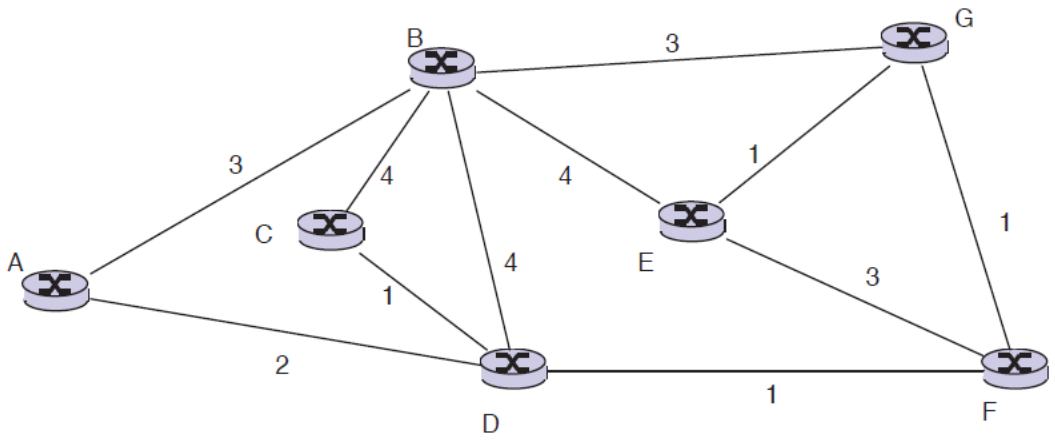
COMP 9121 Week 5

(1) In the graph below, use the Distance Vector routing (without split horizon or reverse poisoning) to find the minimum distance from each node to node G. Assume that exchanges of routing information and routing table updates are synchronous (i.e., they happen at the same time at all nodes). Fill out the table below to find the shortest distance from each node to node G.



	A	B	C	D	E	F
Initial	-1, ∞	-1, ∞	-1, ∞	-1, ∞	-1, ∞	-1, ∞
1	-1,∞	G,3	-1,∞	-1,∞	G,1	G,1
2	B,6	G,3	B,7	F,2	G,1	G,1
3	D,4	G,3	D,3	F,2	G,1	G,1
(4)	D,4	G,3	D,3	F,2	G,1	G,1

(2) Following (1), assume that the link between nodes F and G is disconnected. Do NOT use split horizon or reverse poisoning. Fill out the table below to find the shortest distance from each node to node G.

	A	B	C	D	E	F
Initial	D,4	G,3	D,3	F,2	G,1	G,1
1	D,4	G,3	D,3	F,2	G,1	D,3
2	D,4	G,3	D,3	F,4	G,1	D,3
3	D,6	G,3	D,5	F,4	G,1	E,4

4	D,6	G,3	D,5	F,5	G,1	E,4
5	B,6	G,3	D,6	F,5	G,1	E,4
(6)	B,6	G,3	D,6	F,5	G,1	E,4

(3) Following (1), assuming that the link between nodes F and G is broken, use split horizon with reverse poisoning to find the shortest distance from all nodes to G.

	A	B	C	D	E	F
Initial	D,4	G,3	D,3	F,2	G,1	G,1
1	D,4	G,3	D,3	F,2	G,1	E,4
2	D,4	G,3	D,3	F,5	G,1	E,4
3	B,6	G,3	D,6	F,5	G,1	E,4
(4)	B,6	G,3	D,6	F,5	G,1	E,4