11/28/2016

Data Communication - I

HW - 5

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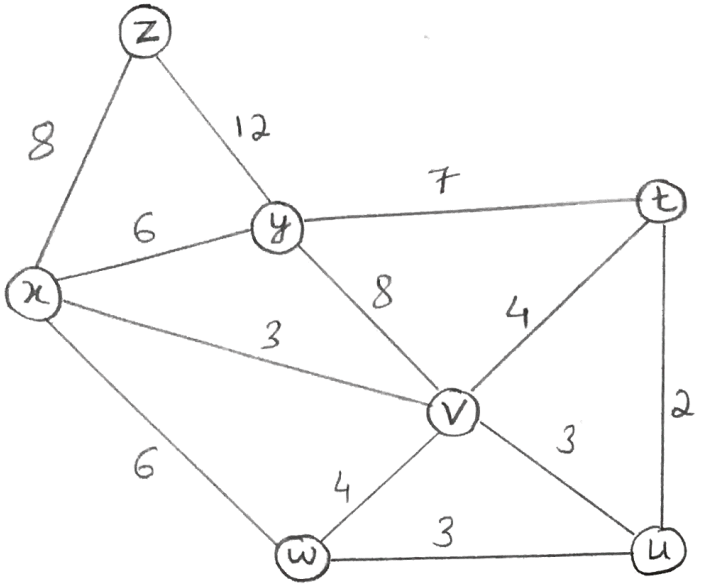
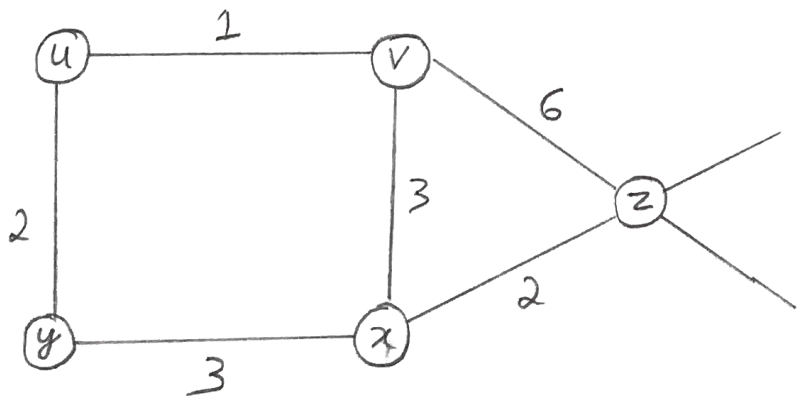
Problem - 3:



Step no	D(z), P(z)	N'	D(t), P(t)	D(u), D(v)	D(v), P(v)	D(w), P(w)	D(y), P(y)
0	8, x	x	∞	∞	3, x	6, x	6, x
1	8, x	xv	7, v	6, v	3, x	6, x	6, x
2	8, x	xvu	7, v	6, v	3, x	6, x	6, x
3	8, x	xvuw	7, v	6, v	3, x	6, x	6, x
4	8, x	xvuwy	7, v	6, v	3, x	6, x	6, x
5	8, x	xvuwyt	7, v	6, v	3, x	6, x	6, x
6	8, x	xvuwytz	7, v	6, v			

Problem 5:



Given: Each node initially knows the cost to each of its neighbors.

Cost to:

	u	v	x	y	z
From v	1	0	3	3	5
From x	4	3	0	3	2
From y	6	5	2	5	0

Cost to:

	u	v	x	y	z
From v	1	0	3	3	5
From x	4	3	0	3	2
From z	6	5	2	5	0

Problem 8:

* Node 'x' table:

Cost to:

	x	y	z
From x	0	3	4
From y	∞	∞	∞
From z	∞	∞	∞

Cost to:

	x	y	z
From x	0	3	4
From y	3	0	6
From z	4	6	0

* Node 'y' table:

Cost to:

	x	y	z
From x	∞	∞	∞
From y	3	0	6
From z	∞	∞	∞

Cost to:

	x	y	z
From x	0	3	4
From y	3	0	6
From z	4	6	0

* Node 'z' table:

cost to:

	x	y	z
From x	∞	∞	∞
From y	∞	∞	∞
From z	4	6	0

Cost to:

	x	y	z
From x	0	3	4
From y	3	0	6
From z	4	6	0

Problem 14:

(a) eBGP routing protocol will be used to learn about the prefix 'x'.

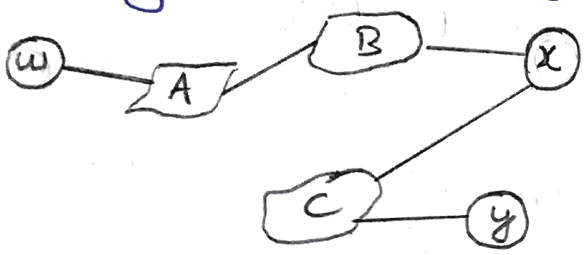
(b) iBGP for router 3a

(c) eBGP for router 1c

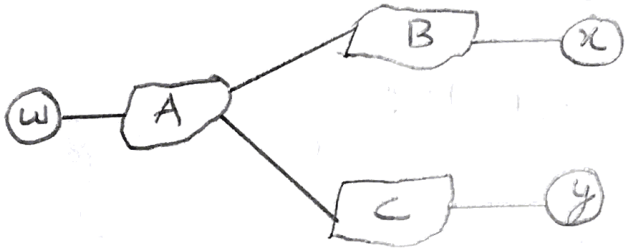
(d) iBGP for router 1d

Problem 17:

Consider x's view of the given topology



Consider w's view of the given topology.



From the figure we can say that 'x' is not aware of the link between A & C. Since 'x' doesn't recieve an advertised ~~rote~~ route to w, or to 'y', that contain the AC link. Also, we can say that from 'y' we can reach out to Node 'C' which inturn is connected to A. There by establishing the link to 'w'.