2018 Fall Computer Network

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標題：計算機網路 作業六

1. Distance table

From\To	u	v	x	y	z
v	∞	∞	∞	∞	∞
x	∞	∞	∞	∞	∞
z	∞	6	2	∞	0

From\To	u	v	x	y	z
v	1	0	3	∞	6
x	∞	3	0	3	2
z	7	5	2	5	0

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

2. No, this is because that decreasing link cost won't cause a loop (caused by the next-hop relation of between two nodes of that link). Connecting two nodes with a link is equivalent to decreasing the link weight from infinite to the finite weight.

3. (a) eBGP (external BGP)
   (b) iBGP (internal BGP)
   (c) eBGP (external BGP)
   (d) iBGP (internal BGP)

4. (a) I_1 because this interface begins the least cost path from 1d towards the gateway router

1c.

(b) I_2 because both routes have equal AS-PATH length but I_2 begins the path that has the closest NEXT-HOP router.

(c) I_1 because I_1 begins the path that has the shortest AS-PATH.

5. A advertise to B AS-Path: AW, AV
   A advertise to C AS-Path: AV
   C recieves AS-Path: BAW, BAV, AV

6. If systems sent SNMP traps via TCP they could block waiting for the packets to be ACKed if there was a problem getting the traffic to the receiver. If a lot of traps were generated, it could use up the available sockets on the system and the system would lock up. With UDP that is not an issue because it is stateless.