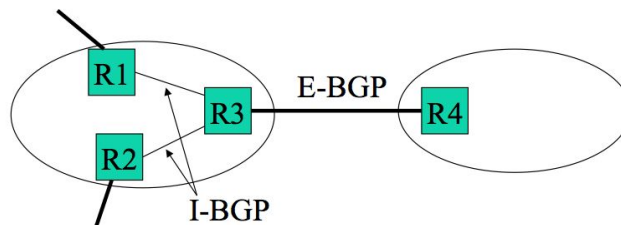


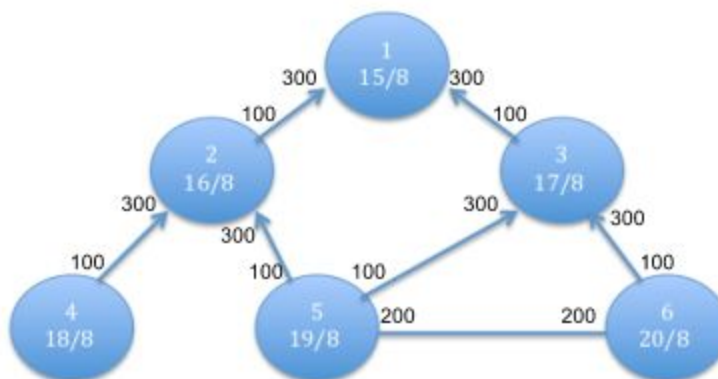
Homework 6

Problem 1: I-BGP and E-BGP



- a) Should R3 tell R1 routes it learns from R4? **Yes**
- b) Should R3 tell R4 prefixes it learns from R2? **Yes**
- c) Should R3 tell R1 prefixes it learns from R2? **No**

Problem 2: Valley-Free Routing



2b) ADJ_RIB Table

Prefix	Router 1	Router 2	Router 3	Router 4	Router 5	Router 6
15/8	--	1	1	2, 1	2, 1 or 3, 1	3, 1
16/8	2	--	1, 2	2	2 or 3, 1, 2	3, 1, 2
17/8	3	1, 3	--	2, 1, 3	3 or 2, 1, 3	3
18/8	2, 4	4	1, 2, 4	--	2, 4 or 3, 1, 2, 4	3, 1, 2, 4
19/8	2, 5 or 3, 5	5 or 1, 3, 5	5 or 1, 2, 5	2, 5 or 2, 1, 3, 5	--	5 or 3, 5 or 3, 1, 2, 5
20/8	3, 6	1, 3, 6	6	2, 1, 3, 6	6 or 3, 6	--

2c) FIB Table

Prefix	Router 1	Router 2	Router 3	Router 4	Router 5	Router 6
15/8	--	1	1	2	2	3
16/8	2	--	1	2	2	3
17/8	3	1	--	2	3	3
18/8	2	4	1	--	2	3
19/8	2	5	5	2	--	5
20/8	3	1	6	2	6	--

Problem 3: Route Hijacking

