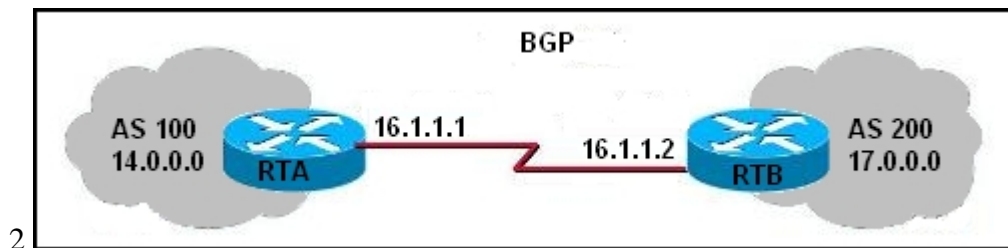NAME:_____ DATE: _____

CCNP 1 Study Guide
Chapter 6 - BGP

1 Write the command that would allow the filtering of routes for the 10.0.0.0 255.255.0.0 network through the 10.0.0.0 255.255.255.0 network address space?


2

Observe the diagram. Write the configurations that will allow RTA to establish a neighbor relationship with RTB?

3 By default, if an IGP has not learned about a local route, BGP cannot advertise it. What configuration parameter will override this behavior?

4 What command would suppress more specific routes and only update other BGP routers about supernet 160.0.0.0/8?

5 What is the function of the network command in a BGP configuration?
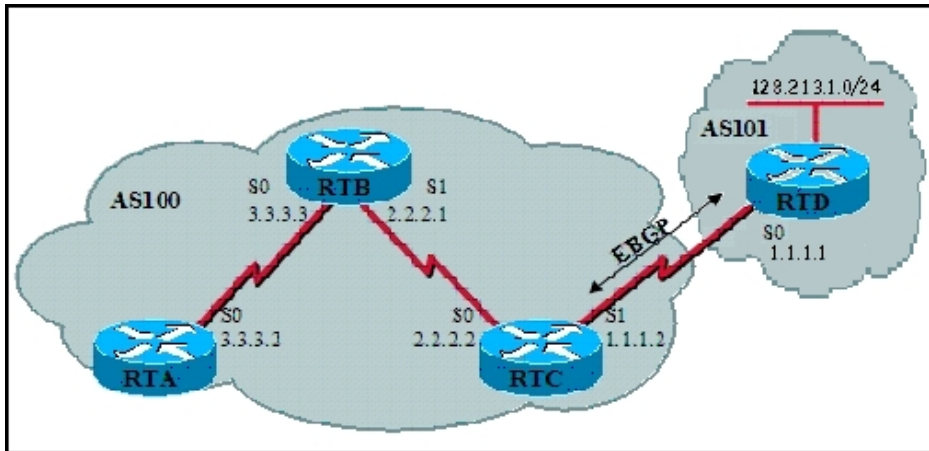
6
Given the above diagram, which address will RTB view as the next hop address to reach network 128.213.1.0/24?

7 What option provides an alternative to using access lists with regards to BGP routing policies?

8 What is the purpose of the input policy engine for the BGP routing process?

9 A BGP routing policy has been created using route maps. The command **route-map TEST permit 10** is part of the configuration. What does the parameter 10 indicate?

10 What command would result in the router sending default route information only to the specified neighbor?

11 List and describe the three are well-known mandatory attributes for BGP?
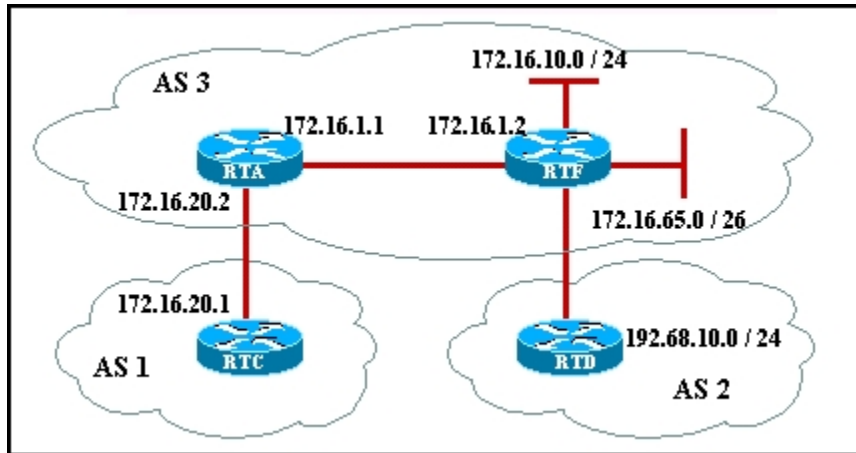
12
From the given configuration taken from RTA and graphic, which network will be filtered from being propagated to RTC from RTA?
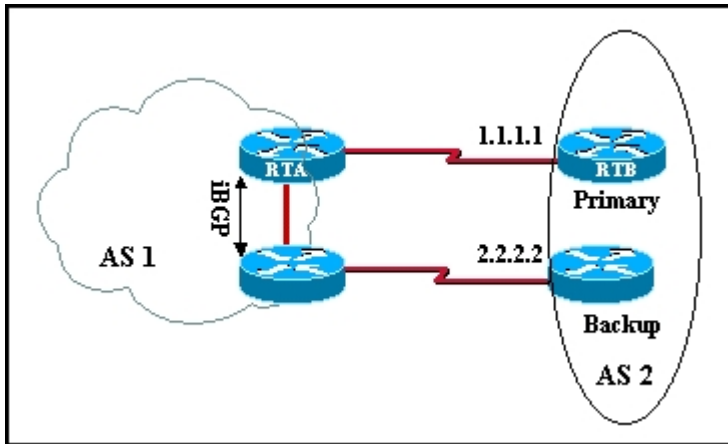
router bgp 3
no synchronization
neighbor 172.16.1.2 remote-as 3
neighbor 172.16.20.1 remote-as 1
neighbor 172.16.20.1 distribute-list 1 out
no auto-summary

access-list 1 deny 192.68.10.0 0.0.0.255
access-list 1 permit 0.0.0.0 255.255.255.255

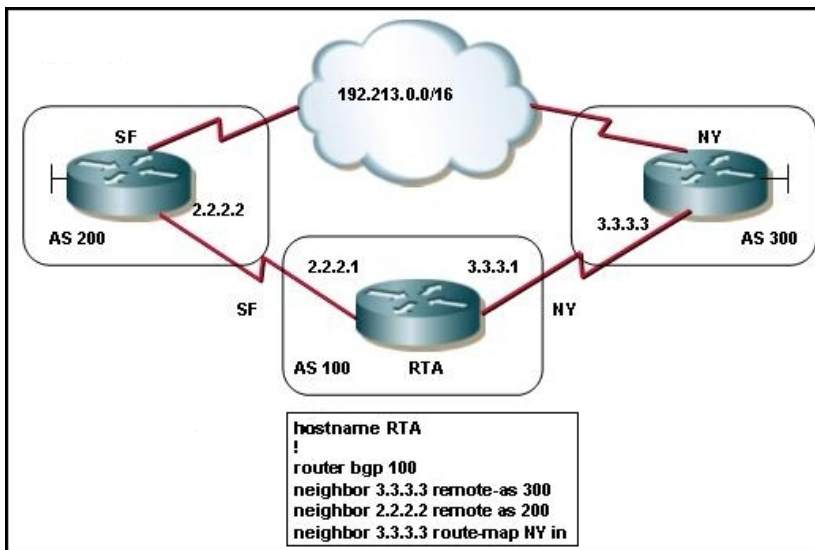13 Describe the items contained in a BGP update message?

14

Assume all routers are running BGP sessions and both links are operational. Write the command set that would insure AS1 routers use link 1.1.1.1 for packet transmittal to AS2?

15 In which state does BGP start exchanging update packets with its peers?


```
hostname RTA
!
router bgp 100
neighbor 3.3.3.3 remote-as 300
neighbor 2.2.2.2 remote as 200
neighbor 3.3.3.3 route-map NY in
```

16

Refer to the diagram and configuration. RTA receives the prefix 192.213.0.0/16 from both providers SF and NY. Write out the route-map configurations for RTA that will set up NY as a primary link and SF as a backup link?

17 A BGP router has two routes with the same weight, same local preferences and reachable next hops. Both routes originated from peer routers. What is the next tie-breaker in BGP route selection process?

18 How can static routes be dynamically injected into BGP?

19 Under which circumstances is it necessary to use BGP to connect to an ISP?

20 What are characteristics of an IBGP session type?

```
RTA(config)# router bgp 300
RTA(config-router)# neighbor 3.3.3.3 remote-as 200
RTA(config-router)# neighbor 2.2.2.2 remote-as 100
RTA(config-router)# network 160.10.0.0
RTA(config-router)# aggregate-address 160.0.0.0 255.0.0.0 summary-only
```

21

Describe what the above configuration does.

22 Which attribute must be sent in the BGP update packet and must be recognized by all implementations of BGP?