Unit 4 - Week 2: Routing

Assignment: Week 2

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2019-08-21, 23:59 IST.

1) Consider the following network. *1 point*

The routing table of each router is given below

R1's routing table

```
Router#sh ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

     1.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       1.0.0.0/8 is directly connected, GigabitEthernet0/0/1
L       1.6.10.1/32 is directly connected, GigabitEthernet0/0/1
     192.168.10.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.10.0/24 is directly connected, GigabitEthernet0/0/0
L       192.168.10.1/32 is directly connected, GigabitEthernet0/0/0
```

R2's routing table

```
Router#sh ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

     1.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       1.0.0.0/8 is directly connected, GigabitEthernet0/0/1
L       1.6.10.2/32 is directly connected, GigabitEthernet0/0/1
     172.16.0.0/16 is variably subnetted, 2 subnets, 2 masks
C       172.16.0.0/16 is directly connected, GigabitEthernet0/0/0
L       172.16.24.1/32 is directly connected, GigabitEthernet0/0/0
```

Based on this information, answer the following questions

Can L2 ping L4?

- Yes
- No

No, the answer is incorrect.
Score: 0

Accepted Answers:
No

2) Which of the following statements are correct about the network? *1 point*

- There are 3 networks in the topology
- The routers cannot send packets between each other
- Switches are configured with correct IP address
- L1 and L2 do not have correct IP addresses

No, the answer is incorrect.
Score: 0

Accepted Answers:
There are 3 networks in the topology
The routers cannot send packets between each other

3) Assume that you are sending a ping from L1 to L4. When the packet leaves R1 what will be the input address on it? *1 point*

- 192.168.10.2
- 192.168.10.1
- 192.168.10.0
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
192.168.10.2

4) Given the routing tables of both routers, which of the following ping will fail? *1 point*

- L1 to L2
- L2 to R1
- L2 to L4
- R2 to L6

No, the answer is incorrect.
Score: 0

Accepted Answers:
L2 to L4

5) If you have to statically connect R1 to R2, which of the following routes will you add in R1? *1 point*

- 0.0.0.0/0 via 1.6.0.0
- 1.6.10.2/8 via 1.6.10.1
- 0.0.0.0/0 via 1.6.10.2
- 172.16.0.0/16 via 1.6.10.2

No, the answer is incorrect.
Score: 0

Accepted Answers:
172.16.0.0/16 via 1.6.10.2

6) If you have add to a route dynamically using RIP in R2, which one of the following would you add? *1 point*

- 192.168.10.0/8
- 192.168.0.0/16
- 172.16.0.0/16
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
172.16.0.0/16

7) In which of the following situation do you prefer static routing? *1 point*

- Home network
- A corporation having multiple branches in different cities
- A corporation having multiple branches within a city
- All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Home network

8) Switch has a mapping of *1 point*

- MAC addresses and corresponding ports
- MAC addresses and corresponding IP addresses
- IP addresses and corresponding ports
- All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
MAC addresses and corresponding ports

9) Router has a mapping of *0 points*

- MAC addresses and corresponding Ports
- MAC addresses and corresponding IP addresses
- IP addresses and corresponding Port numbers
- All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
MAC addresses and corresponding IP addresses
IP addresses and corresponding Port numbers

10) Network Address Translation is used to *1 point*

- get IP address corresponding to MAC addresses
- Get IP addresses dynamically allotted
- Convert private IP addresses to public IP addresses
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Convert private IP addresses to public IP addresses