

LOCATION: LONDON

LLEOLIAD:

LEVEL 6

LEFEL 6

EXAMINATION PERIOD
SEPTEMBER 2017

CYFNOD ARHOLIADAU
2017

MODULE CODE: CSAC6002_LON
Wide Area Networks

TIME: 2 HOURS

ANSWER THREE QUESTIONS OUT OF FOUR

Equipment or materials required – None

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ANSWER THREE QUESTIONS OUT OF FOUR

1.

- a. Explain the importance of Quality of Service (QoS). Describe the types of data that benefit from the use of QoS and why they need this service to work effectively. (10 marks)
- b. Illustrate 3 different queue algorithms used in QoS. (15 marks)

2.

- a. Explain the operation of ACL. (4 marks)
- b. Name and identify the key differences of the two types of Cisco IPv4 ACL. (5 marks)
- c. Outline the general guidelines for placing ACL (6 marks)
- d. Refer to figure 1, apply standard ACL commands to interface g0/0 to deny traffic from 192.168.10.10 (5 marks)

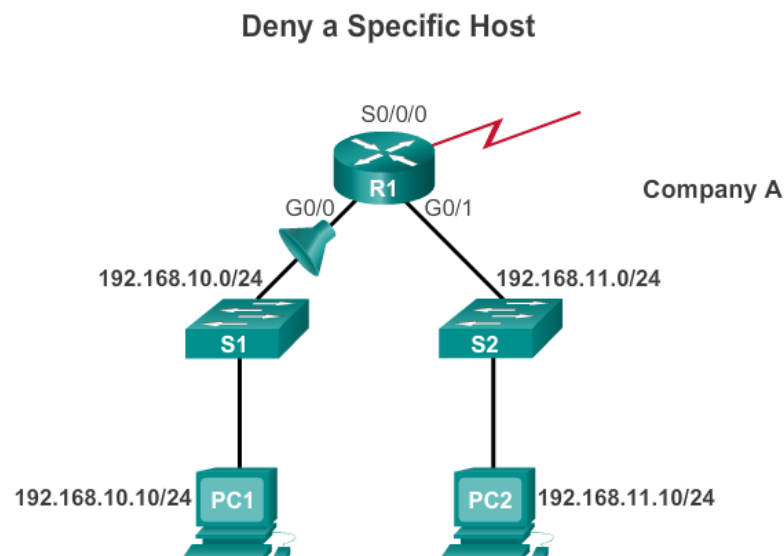


Figure 1

- e. Refer to figure 2 and figure 3, the 192.168.11.0 /24 network can use Telnet to connect to 192.168.30.0 /24, but according to company policy, this connection should not be allowed. Examine the configuration commands and state why it is possible to use Telnet. (5 marks)

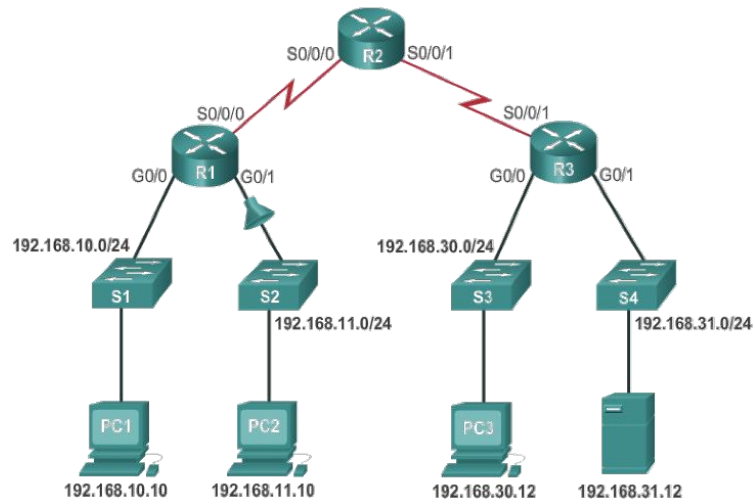


Figure 2

```

10 deny tcp any eq telnet any
20 deny tcp 192.168.11.0 0.0.0.255 host 192.168.31.12 eq smtp
30 permit tcp any any (12 match(es))

```

Figure 3

- 3.
- Depict 3 different Wide Area Network technologies that are currently in use to connect networks to the Internet. (18 marks)
 - Looking at the network given in figure 4, describe the commands given in figure 5 & 6. (7 marks)

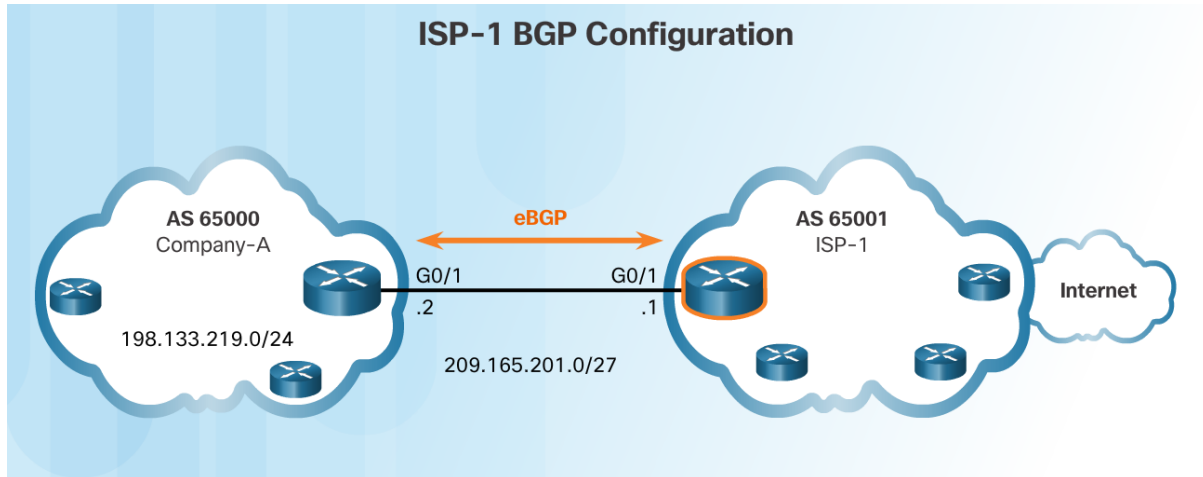


Figure 4

```
Company-A(config)# router bgp 65000
Company-A(config-router)# neighbor 209.165.201.1 remote-as 65001
Company-A(config-router)# network 198.133.219.0 mask 255.255.255.0
```

Figure 5

```
ISP-1(config)# router bgp 65001
ISP-1(config-router)# neighbor 209.165.201.2 remote-as 65000
ISP-1(config-router)# network 0.0.0.0
```

Figure 6

4.

- a.** Illustrate common security attacks on a LAN network and why these considerations are important for WAN networks. (9 marks)
- b.** Identify 2 types of security attacks that can weaken a network. (8 marks)
- c.** What are the benefits of a VPN for site to site security. (8 marks)

Diwedd/End